

2000

Establishment of a formal maritime safety administration in Guatemala

Pablo Arturo Martin Nowell Maldonado

World Maritime University

Follow this and additional works at: http://commons.wmu.se/all_dissertations



Part of the [Public Administration Commons](#)

Recommended Citation

Nowell Maldonado, Pablo Arturo Martin, "Establishment of a formal maritime safety administration in Guatemala" (2000). *World Maritime University Dissertations*. 331.

http://commons.wmu.se/all_dissertations/331

This Dissertation is brought to you courtesy of Maritime Commons. Open Access items may be downloaded for non-commercial, fair use academic purposes. No items may be hosted on another server or web site without express written permission from the World Maritime University. For more information, please contact library@wmu.se.

WORLD MARITIME UNIVERSITY
Malmö, Sweden

**ESTABLISHMENT OF A FORMAL MARITIME
SAFETY ADMINISTRATION IN GUATEMALA**

By

PABLO ARTURO MARTIN NOWELL MALDONADO
Guatemala, C.A.

**A dissertation submitted to the World Maritime University in partial
fulfillment of the requirements for the award of the degree of**

MASTER OF SCIENCE

in

**MARITIME SAFETY AND ENVIRONMENTAL PROTECTION
(NAUTICAL)**

2000

©Copyright Pablo Arturo Martin Nowell Maldonado, 2000

DECLARATION

I certify that all material in this dissertation which is not my own work has been identified and that no material is included for which a degree has been previously conferred upon me.

The contents of this dissertation reflect my personal views and are not necessarily endorsed by the University.

Signature

Date: August 21, 2000

Supervised by:

Lieutenant Commander Max Mejia
Lecturer, Maritime Safety and Environmental Protection
World Maritime Administration

Assessed by:

Mr. Richard Hodgson
Associate Professor, Maritime Safety and Environmental Protection
World Maritime University

Co-assessed by:

Commander Ivan Valenzuela Bosne
Maritime Governor, Castro
General Directorate of the Maritime Territory and the Merchant Marine, Chile

ACKNOWLEDGEMENTS

The author would like to thank the **Guatemalan Ministry of Defence** and the **Navy** for providing him the opportunity to study at the World Maritime University in Malmö, Sweden for this fruitful two year-period.

Grateful thanks to my Supervisor **Max Mejia** of the MSEP Department and to Lecturer **Deborah Sam** of the Intensive English Language Programme who read this work and made valuable contributions.

Grateful thanks to **Mr. Bruce Browne** Academic Register, for helping me to come to the WMU, thank you again for believing in me.

Grateful thanks to all **resident professors, lecturers** and **visiting professors** as well as to the **staff** of the University from whom the author acquired very useful knowledge, co-operation and permanent support.

He would like to thank also the **maritime administrations** of the **Nordic countries**, the **United Kingdom** and the **Netherlands** as well as to all Organisations that have been involve in his instruction for their great support and collaboration during the Field Training.

Grateful thanks to the **Swedish Government** and **Malmö City Authorities** for having been our host during this two-year period in Sweden.

The author would like to thank his mother **Jena**, his wife **Beverly**, his daughter **Monika**, his sisters **Mirian Graciela**, **Ana Maria**, **Teresa Lourdes** and **Edna Ruth** for their understanding and permanent support and being the source of inspiration during his studies and during the preparation of his project.

Finally, the author would like to dedicate this Thesis and the Master of Science Degree to his mother **Jena** and to the memory of his father **Arturo** (may his soul be resting in heaven in peace).

ABSTRACT

Title of Thesis: **Establishment of a Formal Maritime Safety Administration in Guatemala**

Degree: **MSc**

This thesis is a study of the present situation of the informal maritime safety administration in Guatemala and why is it important to establish a formal one.

In order to do this, in Chapter Two some aspects were taken into consideration to establish the necessity of the creation of the Guatemalan Maritime Administration. In this section the geographical location of the country was described to prove that Guatemala is a maritime country. In addition the economic, the abundance living and nonliving marine natural resources aspects and regional conflicting claims to maritime jurisdiction were touched upon to affirm that the country has significant interest in maritime affairs and that its economy depends a great deal on maritime activities.

However, in order to implement the Guatemalan Maritime Safety Administration, three very successful maritime safety administrations were used as examples in the Third Chapter. They are the maritime administrations of Chile, the United States of America, and Sweden.

Additionally in Chapter Four the author will propose the mission, organisation and duties of the Guatemalan Formal Maritime Safety Administration, base on the geographical, economical, natural resources, geopolitical factors and the comparison of the three maritime safety administrations mention above.

The final Chapter discusses the final conclusion and proposes recommendations for the implementation of the Guatemalan Maritime Safety Administration.

Keywords: Establishment, Economic, Living and Non-Living Resources, Geopolitical, Geographical, Maritime Safety Administration,

TABLE OF CONTENTS

Declaration	ii
Acknowledgements	iii
Abstract	iv
Table of Contents	v
List of Tables	viii
List of Figures	ix
List of Abbreviations	xi
1 Introduction	1
2 Guatemala's Maritime Situation	5
2.1 General aspects	5
2.1.1 Guatemala's geographic location	6
2.1.2 Guatemala's maritime economy	6
2.1.3 Guatemala's natural resources (living & non-living)	11
2.1.4 Current geopolitical situation of Guatemala	13
2.2 Present situation of the agencies that manage the maritime sector	15
2.2.1 The Ministry of Defence (within it the Navy)	16
2.2.2 The Ministry of Communication, Transport and Public Works	18
2.2.3 The Ministry of Finance	19
2.2.4 The Ministry of Energy and Mines	20
2.2.5 The Ministry of Health and Social Wealth	20
2.2.6 The Ministry of Interior	20
2.2.6.1 The General Directorate of Costumes	20
2.2.6.2 The General Directorate of Emigration	21
2.2.7 The Ministry of Foreign Affairs	21
2.2.8 The Ministry of Agriculture	21
2.2.8.1 The General Directorate of Fisheries	22
2.2.8.2 The General Directorate of Quarantine	22
2.2.9 The Guatemalan Railroad (FEGUA)	22
2.2.10 The National Commission for Protecting the Environment (CONAMA)	22
2.3 Analysis of the present situation	23
3 Examples of successful models of maritime safety administration in South America, North America and Europe	26
3.1 The Chilean General Directorate of the Maritime Territory and The Merchant Marine (DIRECTEMAR)	28
3.1.1 General aspects	28
3.1.2 Mission	31
3.1.3 Dependency	31

3.1.4	Ambits of action	33
3.1.4.1	Maritime Safety	34
3.1.4.2	Protection and safety of the human life at sea	37
3.1.4.3	Preservation & Protection of the maritime environment	38
3.1.4.4	Maritime Control, Security and Discipline	39
3.1.4.5	National merchant marine, including fishing, tourist/ recreation activities	40
3.1.4.6	Maritime representation of the Chilean state.	41
3.1.4.7	Maritime Interest	41
3.1.4.8	Naval Operative Support	42
3.2	The North American Model, The United States Coast Guard (USCG).	43
3.2.1	General aspects:	44
3.2.2	Mission	47
3.2.3	Dependency	47
3.2.4	Ambits of action	48
3.3	The European Model, The Sweden Maritime Administration (SMA)	49
3.3.1	General aspects:	49
3.3.2	Mission:	53
3.3.3	Dependency:	53
3.3.4	Ambits of action	54
3.4	Analysis:	54
4	Guatemala's model of a maritime safety administration	60
4.1	Guatemalan Maritime Safety Administration	61
4.2	Structural Organisation of the GMSA	61
4.3	Duties and Obligations of the GMSA	62
4.4	Functional Description of the GMSA	63
4.4.1	General Director of the GMSA	63
4.4.2	Deputy Director of the GMSA	64
4.4.3	Legal Adviser	64
4.4.4	International Maritime Organisation (IMO) Permanent Representative	64
4.4.5	International Affairs	65
4.4.6	General Secretariat	65
4.4.7	Harbour Master Department	66
4.4.8	Maritime Safety Department	67
4.4.8.1	Flag/Port State Control Section	68
4.4.8.2	Casualty Investigation Section	70
4.4.8.3	Fishing and Recreational Craft Section	71
4.4.8.4	Ship Register Section	71
4.4.8.5	STCW and Crew Matters Section	72
4.4.8.6	National Search and Rescue Co-ordination	74
4.4.9	Administrative & Finance Department	75
4.4.9.1	General Services Section	75
4.4.9.2	Finance and Logistic Section	75
4.4.9.3	Informatic Section	76
4.4.9.4	Library and Publication Section	76

4.4.10 Marine Environmental Department	77
4.4.10.1 Contingency Planning Section	78
4.4.10.2 Marine Resources Section	79
4.4.10.3 Hydrographic and Oceanographic Section	79
5 Conclusions and Recommendations	81
Reference	87
Appendices	
Appendix A Guatemalan Ports	95
Appendix B Lake and Fluvial Traffic in Guatemala	102
Appendix C Guatemala's Living and None Living Natural Resources	106
Appendix D Geopolitical Situation of Guatemala	114
Appendix E Laws, Acts, Decree, Rules and International Conventions use in Guatemala by the Maritime Authority	119
Appendix F Guatemala's Naval Force Maritime Mission	120
Appendix G List of Chile's National and International Regime for Maritime Matters	123
Appendix H Swedish Maritime Administration Legal Regime	124

LIST OF TABLES

Table 1	DIRECTEMAR, USCG, SMA & Guatemalan Navy Ambits of Action	55
Table 2	Structural Organisation of DIRECTEMAR, USCG, SMA and Guatemalan Navy	57
Table A1	Year 1999 Statistics of Type of Vessels that visit Guatemala's Ports	99
Table A2	Year 1999 Statistics of the Guatemalan Port Cargo	100
Table A3	Movement of Containers/TUE's for the Year 1996 to 1999 in Guatemalan Ports	101
Table D1	Maritime Claims: Caribbean Sea and the Gulf of Mexico	116

LIST OF FIGURES

Figure 1	Guatemalan's Geographical Location	7
Figure 2	Guatemala's Development of the Ports in the Atlantic Coast	10
Figure 3	Guatemala's Development of the Ports in the Pacific Coast	10
Figure 4	Existing Guatemalan In-formal Maritime Safety Administration	16
Figure 5	Chile's Geographical Position	28
Figure 6	Chile's Maritime Jurisdiction	28
Figure 7	Chile's General Directorate of the Maritime Territory and the Merchant Marine (DIRECTEMAR) Organisation	29
Figure 8	Chile's DIRECTEMAR Governors Offices	30
Figure. 9	Chile's DIRECTEMAR Organisational Chart	32
Figure 10	Maritime Safety Ambit of Action	34
Figure 11	Protection and safety of the human life at sea Ambit of Action	37
Figure 12	Preservation and Protection of the maritime environment Am. of Acti.	38
Figure 13	Maritime control, security and discipline Ambit of Action	39
Figure 14	Chile's merchant marine, fishing, tourist/ recreation activt. Am. of Act.	41
Figure 15	Maritime Interest Ambit of Action	41
Figure 16	Naval Operative Support Ambit of Action	42
Figure17	The United States of America Geographical Location	44
Figure 18	United States Coast Guard (USCG) Modern Organisation	45
Figure 19	USCG Atlantic and Pacific Areas	46
Figure 20	USCG District Commands and Shore Facilities	46
Figure 21	Sweden Geographical. Location	49
Figure 22	Sweden Maritime Jurisdiction	49
Figure 23	The Swedish Maritime Administration (SMA) Organisation	51
Figure 24	Regional Organisation of the SMA	52
Figure 25	Guatemalan Maritime Safety Administration	61
Figure 26	Organisation of the Guatemalan Maritime Safety Administration	62
Figure A1	Chart of Port Santo Tomas de Castilla and Port Puerto Barrios	96
Figure A2	Chart of Port of Champerico	97
Figure A3	Chart of Port Puerto San Jose and Port Puerto Quetzal	98
Figure B1	Guatemala's Lake and Fluvial Traffic	105

Figure C1	Hydrothermol vents Sides in Guatemala	107
Figure C2	Rich Fishing Areas, Pacific/Atlantic Coast of Guatemala	108
Figure C3	Polymetalic Sulphides and Cobalt Cruts in Guatemala Area	109
Figure C4	Methane Hydrates Area in Guatemala	110
Figure C5	Bioprospecting And Access to the Generic Resources	111
Figure C6	Area with Oil and Gas Resources in the Atlantic Ocean	113
Figure D1	Central American, Caribbean and Mexico Maritime Boundaries	115
Figure D2	Caribbean and Mexico, 200 EEZ over Lapping and Conflict on Maritime Delimitation of Jurisdiction	117

LIST OF ABBREVIATIONS

BD	Icebreaking Departmentl
CA	Central America
CIF	Coast Insurance and Freight
CONAMA	Guatemalan National Commission for the Environment
CONSORCIO	RRI-HPC-LUFTHANSA-GOPA in association with BCEOM-T RANSROUTE-SOFRERAIL-DIFROC
CZ	Contiguous Zone
DFA	Department of Finance and Administration
DIRECTEMAR	Chilean General Directorate of the Maritime Territory and The Merchant Marine
EEZ	Exclusive Economic Zone
FEGUA	Guatemalan Railroad Company
FOB	Free on Board
GMSA	Guatemalan Maritime Safety Authority
HD	Hydrographic Department
IALA	International Association of Light House Authority
ILO	International Labour Organisation
IMO	International Maritime Organisation
ISM	International Safety and Management Code
MANRAD	United States of America Maritime Administration
MARPOL	International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978
MOU	Memorandum of Understanding
MSI	Maritime Safety Inspectorate
MTD	Maritime Traffic Department
SAR	Search and Rescue
SCG	Swedish Coast Guard
SMA	Swedish Maritime Authority
SOLAS	Consolidated test of the International Convention for the Safety of Life at Sea, 1974, and its Protocol of 1978

STCW/78	International Convention for Standard Training Certificate and Watchkeeping 1978
STCW/95	International Convention for Standard Training Certificate and Watchkeeping 1995
TD	Technical Department
TM	Metric Tonnage
TS	Territorial Sea
UNCLOS	United Nations Convention Law of the Sea
USA	United States of America
USCG	United States Coast Guard
USD	United States Dollars
USN	United States Navy
WMU	World Maritime University

CHAPTER 1

INTRODUCTION

After the Mayan civilisation mysteriously disappeared, descendent tribes appeared making the Guatemalan society multicultural and multilingual. The Mayan civilisation and culture was mainly oriented to agriculture and did not pay attention to the sea. Today, Guatemala's society is turning its back to the sea because of this historic precedent.

Unfortunately the country was involved in one of the longest civil wars in the history of the world, ending only in December of 1997 when the peace treaty was signed. During this bitter war the government was usually military for strategic reasons. The Guatemalan civil war really happened because of the exterior political influence of the cold war. This long, tiring and useless conflict created a division between the Guatemalan society both civilian and military and almost collapsed its economy. However in the peace treaty it was stated that the government would be managed by civilians and that the military should go back to its constitutional and other duties that the government normally orders. Years before the peace treaty was signed the military prepared its personnel for this peacetime situation, unfortunately in the civilian part this did not happen. Lamentable for the country, even today groups exist within government and non-governmental organisation that subscribe to the mentality that the military should not create or be involved in any new agencies created, even if is for the betterment of the country.

Guatemala is a privileged country in having access to two seas, the Atlantic and the Pacific Sea. This access makes it possible for the country to have commercial ports on both oceans, giving it a great commercial advantage to export and import to any part of the world. Guatemala has this commercial advantage over landlocked countries like Bolivia, Paraguay, and Switzerland and also over countries that have

only one ocean on which to do commerce like its neighbours Belize and El Salvador. Guatemala has four land/sea neighbouring countries (Mexico, Belize, Honduras, El Salvador). The national maritime jurisdiction of Guatemala is one and a half more than its territory. This commercial advantage can last or can be limited if the government keeps disregarding the importance of the maritime activities in the country. The reason could be that it has not signed any sea boundary treaties with its neighbours, who could at any moment start making maritime claims, which takes away maritime jurisdiction from Guatemala, like the present case with Belize. Also recently with Honduras, in the newspapers the news said (Guatemala Prensa Libre 2000 and Honduras La Prensa 2000) by the Congress of Guatemala that this act by Honduras was done unilaterally in their favour, the Honduran government responded that this Decree did not damage the interest of Guatemala. This is why it is of great importance to create an agency that can advise the government in maritime matters.

Guatemala's economy depends greatly on the export and import of goods, which is done through the national ports. The jurisdictional waters of the country are extremely rich in natural resources Maritime, lake and fluvial tourism also contributes in great part to the economy of the country. The natural resources and commercial ports of the country are not being developed in all their potential due to the insufficiency interest and knowledge of the political and private sector and governmental agencies of the country. Some living and non-living maritime resources are being exploited, like fishing, but not at the levels they should be. The shipping in the ports, the lake, fluvial and maritime tourism and the exploitation of the marine natural resources are being threatened due to the insufficiency of national laws and the non-ratification of international conventions (IMO/ILO). In the past, many serious accidents like fires, explosion of dangerous goods, collisions, oil spills have happened, giving as a result the loss of human life, damage to property and pollution of the marine environment. These situations influence in a negative way the society and the economy of the country. These last three paragraphs will be dealt with in detail in Chapter Two.

Guatemala presently has different Ministries that deal in an informal way with the safety, security and protection of maritime activities. They are the Ministries of Defence, Exterior, Interior, Communication, Agriculture, Energy and Mines and others. Chapter Two will also describe the present situation of the Guatemalan maritime authorities. In the opinion of the author Guatemala should implement two new agencies. These agencies are the *maritime administration* that would deal with the economic policy of maritime shipping matters. The other is the *maritime safety administration* that would deal with safety, security and the protection of human life, the damage to property and the prevention and protection of marine environment and for ending the economy. These two agencies are very well separated in the Constitution of the Republic of Guatemala in the sense that the economic part should be done by the civilian part of the government and the safety, security and protection of the environment by the military part.

In order to properly implement the Guatemalan Maritime Safety Administration, the author will present, in the Third Chapter, three different maritime safety administrations as examples of functional agencies so it can make comparisons with the present administration in Guatemala and subtract this information and adapted to the Guatemala reality. These administrations are unique and very successful, but at the same time similar in the way they handle maritime matters. We will of course, in doing so the geographical, economical, maritime natural resources and the geopolitical situation of the country will be taken into consideration. The first one is administration of Chile, called the Chilean General Directorate of the Maritime Territory and The Merchant Marine (DIRECTEMAR) which is the leading administration in Latin America in managing maritime matters and also one of the leading Latin American countries in the International Maritime Organisation (IMO). DIRECTEMAR works under the Navy, which is within the Ministry of Defence. The second one we will discussed is the United States of America's administration, which is called the United States Coast Guard (USCG) managed under the ministry of Transport, but working under a full military structure. The USCG has many military missions and in war times works under the Ministry of Defence. The third is the Swedish administration, Sweden Maritime Administration (SMA), which works under the Ministry of Transport. This administration has a unique and compact

organisation and is well known in the international arena (IMO) as one of the leaders in promoting new regulations for the safety of human life and damage to property as well as for the protection of the environment.

In Chapter four the author will indicate what Guatemala needs to implement in order to accomplish the creation of the model of a Maritime Safety Administration that applies better to Guatemala. The author will present the organisation that the maritime safety administration in Guatemala shall have.

At the end, in Chapter five, the conclusion and recommendations for the implementation of the formal Guatemalan Maritime Safety Administration (GMSA) will be presented.

CHAPTER TWO

GUATEMALA'S MARITIME SITUATION

2.1 General aspects

Throughout time the maritime navigation has resulted as the most convenient mode for the transport of merchandise, for the simple difference of its freight costs, the easiest way to transport big cargo masses and the natural freedom of its routes, without depending on roads or railroad tracks and what its maintenance implies.

The invention of mechanical propulsion navigation came to revolutionize shipping at the same time that the world's merchant fleet increased. Today many new modern technological advances have occurred. You will think that with all of these advances the maritime industry is perfectly safe; however statistics show that a significant increase in the number and frequencies of maritime accidents that give as a result the loss of life, damage to property and the pollution/contamination of the maritime environment. This obligates the countries of the world to work together as an international community to take regulatory actions through international conventions to protect human life, damage to property and to protect and preserve the maritime environment.

Professor Sho Ma (1999) wrote that "it is roughly estimated that 90% in volume of the international commerce is done by the maritime via and value terms only 40% of the world trade are moved by sea". On account of this, the mode of navigation has been modernized at a dizzying rate since the industrial revolution, contributing significantly to the actual globalization of world economies. Due to this it is necessary to accomplish precise objectives to actualize and/or modernize the structures of the actual Maritime Administrations. Once this is done it will fortify the presence of the States in the aquatic spaces in which sovereignty and jurisdiction are exercise. Each country should strive in a permanent way to accomplish these matters, with the commitment contracted at the National level and in the

international community as a member of the International Maritime Organization. The States should take into account permissible means as well as all persons that possess the knowledge and abilities to manage the maritime matters.

In particular this chapter will illustrate Guatemala's maritime aspects like their geographic, economy, natural resources, geopolitics and the present maritime agencies involve in maritime matters. These aspects will establish Guatemala as a potential excellent maritime country. Therefore it should implement a maritime safety administration in charge of this matters for the better of the country's development in all of the above aspects mention.

2.1.1 Guatemala's geographic location

The geographical configuration of Guatemala is extremely important because it confirms that the country is a maritime state, giving it the commercial advantage of exporting and importing its goods through two oceans, the Atlantic Ocean and the Pacific Ocean. Guatemala has a maritime jurisdiction, which is one and a half more area then it has in land territory. These matters alone are good enough reasons why Guatemala should have a maritime safety administration. Its co-ordinates are 15 30 North and 90 15 West, making Guatemala the westernmost nation in Central America with land boundaries divided as follows in Figure 1. Its border with North America is Mexico. To the east lies the border of Belize, Honduras and El Salvador, a narrow strip of land faces the Caribbean Sea, which possess an exclusive economic zone of 4,980 square nautical miles. Guatemala's southern boundary is marked by the Pacific Ocean with an exclusive economic zone of 27,000 square nautical miles.

2.1.2 Guatemala's maritime economy

First of all, Guatemala is not managing its maritime economy to its maximum potential. This is because, by historical reason, Guatemala's economy is basically agricultural and by tradition its habitants (descendants of the Mayan World) have lived from land farming for thousands of years. Also the lack of political interest and knowledge of the politicians, of the private sector, governmental agencies and professional class in the country, made maritime activities pass to a second position.



Figure 1 Guatemalan's Geographical Location

Source: The Times Atlas of the Ocean (1983)

It is time for the Guatemalan people to realise that the national economy is depending a great deal on maritime activities. These are the principal reasons why the maritime aspects in the country should be co-ordinated by an entity specialised in maritime activities, like the creation of a formal Guatemalan Maritime

Administration to develop a national and international commerce policy. Guatemala also needs to create a maritime safety administration to deal with the ambits of maritime safety that is the regulation of ports and vessels, vessel registration and control, crew certification and education, search and rescue operations and environmental protection.

Having said this, the author will present why the above mention maritime activities are important for the economy of the country. First the commercial port activities in Guatemala are extremely important for its economy. The import and export of goods are done through the different Guatemalan ports located in the Atlantic Ocean (Port Santo Tomas de Castilla and Port Barrios) and the Pacific Ocean (Port Champerico, Port San Jose and Port Quetzal). These ports are de-centralised companies and are administered by different Ministries, creating jealousy and the fear of losing power between them. This does not allow the country to have a real national maritime economic port policy and strategy. However the government has made some effort to correct this by creating the National Port Commission which in charge of co-ordinating the national port commerce policy. Unfortunately this policy has not been created because this Commission is not working in a proper way resulting in a poor national management of the port commerce (for more details about Guatemalan ports see Appendix A).

Nevertheless, Guatemalan exports and imports are important in value, shipping and cargo, "statistics of the exterior commerce (based over the value in USD) reveal that more than 65% of the exports and more than 85% of the imports are transported by maritime via" (CONSORCIO, 1997). This represents for the country, in monetary statistics "exports of \$2.9 billion f.o.b., Guatemala's export partners are: the USA with 37% of the total, El Salvador with 13%, Honduras with 7%, Costa Rica with 5%, and Germany with 5%. Guatemala imported \$3.3 billion c.i.f., and the countries Import partners are the USA with 44% of the total, Mexico with 10%, Venezuela with 4.6%, Japan and Germany" (World Fact book 1997). These statistics clearly indicate that Guatemala's strongly relies and look to maritime activities to develop its economy. Farther, one can conclude that it also relies on its national ports to import and export cargo, which is transported by a great number of merchant marine

vessels. These elements (ports/vessels/cargo) if they are not regulated, controlled and supervised, can cause accidents, causing severe damage to the docks in the ports, at the same time fires, explosions of dangerous cargo and oil spills. The end results are having an environment not safe or secure enough to avoid the loss of human life, damage to private property and pollution to the environment. These accidents have happened in the Guatemalan ports many times, resulting in a lot of calamities and this is damaging and de-stabilising to the national economy. Lets look at the following information to determining the quantity of ships and cargo handled by the national ports. At the same time this is a clear indication of the great danger that is there every day in the port areas, if Guatemala does not implement a maritime safety administration to regulate, control and supervise maritime activities. In 1999 for example the national ports handle more then one thousand seven hundred vessels, the majority of which were cargo, liquid, bulk, gas and passenger vessels. These vessels exported and imported more then one million metric tonnes of different cargo. It is important to show the statistic in the great increment of containers that have been handle in Guatemala from the year 1996 to the year 1999 (statistic see Appendix A).

With these statistics it is clear that a great risk exists for Guatemalan commerce, people, property and environment and it can also be seen that Guatemalan ports are ports mainly for the imports and exports of cargo and not as much for tourism. An important fact to mention is that the movements of products are being transported in foreign flag merchant fleets. This was not always the case, because at one time in the past existed a Central American merchant fleet, which virtually disappeared since 1990 the date on which the last merchant national flag ship was changed to a foreign flag. Guatemala needs to address this situation of not having any national fleet. It is a fact that maritime countries all over the world have national fleets to import and export their products as well as foreign owned national flag vessels to increased their tonnage and therefore enhance their economy. For example it also provides employment for national seafarers. In spite of all of this difficulties, Guatemala's maritime futures looks very promising, CONSORCIO (1997) shows the prognostic of the future development of the ports in the Atlantic and the Pacific Coast (Figure 2 & 3), as follows:

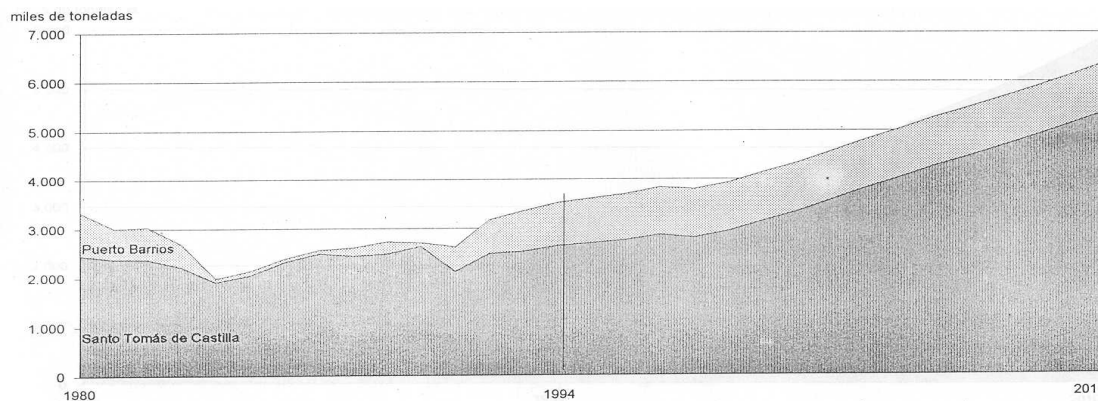


Figure 2 Guatemala's Development of the Ports in the Atlantic Coast

Source: CONSORCIO (1997)

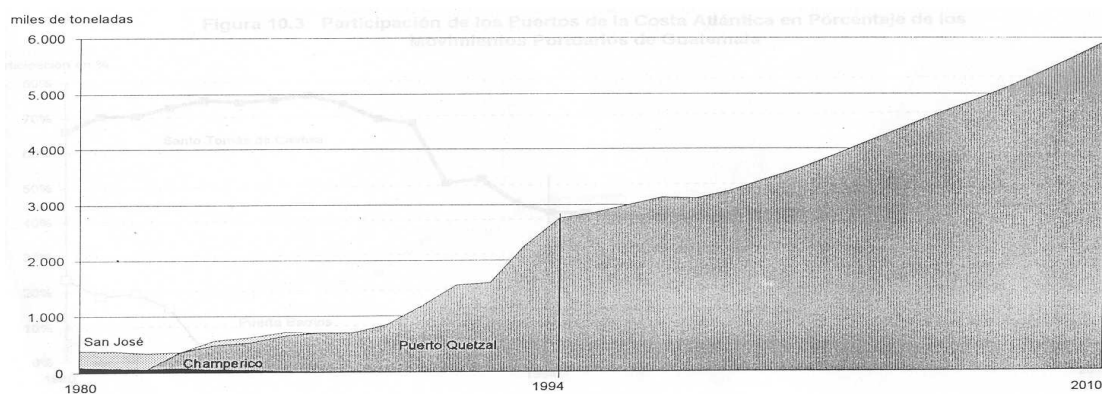


Figure 3 Guatemala's Development of the Ports in the Pacific Coast

Source: CONSORCIO (1997)

Guatemala's commercial port activities as shown are extremely related to the national economic, and also this great number of activities, if they are not regulated, can lead to terrible accidents causing not recoverable damage to the environment, damage to property and the most importantly the loss of human life. Guatemala as a whole needs to address this situation in order to take advantage of this commercial privilege. The only way that this can be done is if the government creates a maritime safety administration. The GMSA will create the proper commercial and living environment so that maritime activities can be managed more safely and securely. It will do this, by advising the government on maritime matters and by regulating, controlling and supervising maritime activities.

The author would like to add some important information in relation to Lake and Fluvial Traffic in Guatemala. At the national level it exists but is used more for tourism than for local transport of goods and passengers on board small vessels, boats or recreational crafts. The problem is that these activities are not regulated at all, provoking many incidents resulting in tragedy to human life, property and the environment. In relation to Guatemalan exterior commerce, lake and fluvial transport does not have any relevant importance. At the present time there is no important volume of traffic that can be taken into consideration (for a more detailed description of the problems of lake and fluvial traffic in Guatemala see Appendix B)

2.1.3 Guatemala's natural resources (living & non-living)

The natural resources in the maritime jurisdiction are important for Guatemala, because they are very rich. Guatemala is not taking advantage of this privilege for the better of its people and for the development of its economy. In regards to this matter it is important to first recognise that Guatemala's economy is based on agriculture, mining, industry and manufacturing. This is due to the traditional negligence of the maritime opportunities by Guatemala as a whole. For example, one cannot forget that Guatemala's inland waters, lagoons, and the bordering seas contain abundant supplies of marine life. This incredible natural resources that Guatemala possesses in its marine jurisdiction are not been well managed and regulated. The present regulations are too weak and therefore allow others, not only some nationals but foreigners, to illegally and indiscriminatorily explore and exploit these resources and pollute the country's marine environment. This is another major reason why Guatemala shall implement the GMSA so it can advise the government and regulate, control and supervise these activities. The GMSA will also promote and provide the necessary advice to the government and the public in general to manage and develop these natural resources and in consequence develop the country's economy.

The government needs to take advantage of the incredible amount of natural resources found in the maritime jurisdiction which were discovered by various scientific surveys and studies (see Appendix C). "Like for instance the Atlantic Ocean which has nutrient-rich water that supports rich fishing in the area and in the

Pacific Ocean. In fact 40% of the world's harvest of finfish comes from it" (Pernetta, 1983). "Guatemala also has Hydrothermal vents which are very rich in minerals and mineral smoke with nutrients that give life" (Preston, 1999). (Jagota, 1999) indicates "that where the tectonic plates meet, Guatemala has very rich Polymetallic Sulphide and Cobalt Crust banks, which are extremely rich in gold, worth billions of dollars, and is also very rich in other minerals". This position is reinforced by (Mann, 1999) which also indicates that "the abundant on the sea-bed may constitute a major source of energy for the next century - or may destabilise the sea floor, causing land-slides and broken cables, and also emitting methane, a greenhouse gas ten times as effective as hydro dioxide". Guatemala is also very rich in oil and gas resources in its maritime jurisdiction. Recently a tremendous amount of these resources was discovered, approximately 7 million of tons annually could be exploitable (Kontorovich, Sam et al, 1999). Also natural gas resources are found along the coasts of Guatemala, Nicaragua and Honduras. The author will refer to Honduras later. These resources alone are enough to make Guatemala a very rich country, therefore potentially making it a developed country which can meet the social needs for its society. A GMSA could be in charge of making the necessary national surveys and scientific studies in order for the country to exploit these resources for the good of the economy.

In regards to these resources, Guatemala has problems with its living and non-living marine resources, because it does not have any special areas which protect its maritime ecosystems or coast line so there is a lost of bio-diversity. The list of fauna includes 88 amphibious species and 200 fresh water fish (lakes and rivers); of which at least 133 species of fresh water animals are endangered species. Along the Pacific Coast shrimp is the resource most taken advantage of and its non-organised exploitation has been done since 1957. The average exploitation of shrimp exceeds 70% of its maximum sustainable development (<http://www.conama.gov.gt.html>). In actuality there are great ecological alterations that effect these resources: inadequate methods of fishing, contamination of lakes, rivers and seas, ignorant and empirical importation of exotic species and the excessive used of pesticides in agriculture. Others are the deterioration of the maritime coastal resources, over exploitation and non-organised exploration of the fishing resources, contamination of

the water by production in the region of maritime-coastal, lost of the coastal forest, pollution by toxic wastes and industrial emission and pollution by solid wastes.

Guatemala has unlimited possibilities to develop economically by taking advantage of its natural maritime resources which were described above. But due to the ignorance and lack of interest on the part of its people in general it can lose these resources if it does not implement a policy of sustainable development. Also because under UNCLOS Convention it is stipulated that each country shall limit its Continental Shelf with a hydrographic survey and scientific research of the area. According to UNCLOS if a country does not do this, another country can do it and make a legal claim over this area. It is of national importance that Guatemala implements its maritime safety administration so it can deal with these matters, for the good of the country's economy and as a whole.

2.1.4 Current geopolitical situation

For the past 39 years the Central American (CA) Region and Mexico have been involved in useless civil wars, occurring mainly because of the major conflicts that occurred between the super powers (cold war). The developing countries, especially in CA were a battle zone for these super powers. Once the hostility between the super powers decreased the countries in CA managed to put an end to these terrible conflicts by signing peace treaties. Mexico is the only neighbouring country that presently has small scale, but nevertheless an active civil war. This situation tremendously damaged the social conditions and economies of the CA countries, at the same time it directed away the attention of the normal management of the country at a national and international level by the government. One of these international matters, which the countries in CA have not paid attention, is the delimitation of the maritime jurisdictional boundaries among them.

The CA countries as a result of not having maritime boundaries some problems have occurred. For example, Costa Rica and Nicaragua are involved in a dispute over the navigation of the San Juan River, which is the natural boundary between them. In addition Nicaragua and Honduras are in unstable relations because Honduras ratified, on November 21 of 1999, a boundary treaty with Colombia; and

Nicaragua said that this took away from them 130,000 km² of maritime jurisdiction in the Atlantic Ocean. Also Honduras just on March 21 of this year in a Decree, which is much more favourable for them. Honduras declares without any diplomacy intervention the maritime boundaries between them and Guatemala. In the Gulf of Fonseca which is shared by Nicaragua, Honduras and El Salvador sometimes peace looks very fragile. At the moment none of the conflicts have escalated in a war situation, however the diplomatic intervention has not been adequate or none at all. Guatemala has limit problems with its maritime boundaries with Mexico, Belize, El Salvador and Honduras that was mentioned above. However with Belize the problem is much worse (for more details see Appendix D).

Guatemala has four neighbouring countries as was specified above (see Figure 1), and at the present time Guatemala has not signed any maritime boundary treaties with its neighbours. The country has good relations in general with all neighbouring countries, with the exception of Belize, because Guatemala is claiming 12,272 km² which Belize asserts is theirs. Historically, to begin with Belize was part of Guatemala and it was taken away by the United Kingdom, which gave independence to Belize in the year 1981. However, after the recent discovery worth billions of dollars in oil and gas mentioned before, the differences with Honduras mentioned above escalated. When in the national news paper indicated that (Guatemala Prensa Libre June/2000 and Honduras La Prensa June/2000), "the Congress of Guatemala expressed that this act by Honduras was done unilaterally in their favour, the Honduran government responded that this Decree did not damage the interest of Guatemala. The Minister of Foreign Affairs of Guatemala, said it wasn't true, that of course it damages the interest of Guatemala. Honduras signed a maritime boundary treaty with Colombia, taking sea rights away from Nicaragua and now is trying to take sea away from Guatemala". The author personally believes that Honduras is doing this, based on strategic reasons, specifically the new discovery of rich natural resources (oil and gas) in the coastal seas off Guatemala, Honduras and Nicaragua. Honduras wants to claim as much maritime jurisdiction as possible so it can take advantage of these natural resources and also limit or stop completely the existence of the Guatemalan ports in the Atlantic Ocean.

Guatemala must pay attention to the signing of maritime boundaries with its neighbouring countries. If the government does not take this matter more seriously, Guatemala is going to lose maritime jurisdiction over water which is very rich in living and no-living natural resources in the Pacific Ocean, and in the Atlantic Ocean even exist the possibility of losing its exit to the sea as well as the living and non-living natural resources.

2.2. Present situation of the agencies that manage the maritime sector

The Guatemalan situation is that all the activities that are executed in the coastal and maritime zones are under the control of different Ministries, which possess inside its organisation entities that have some relation with the Maritime Authority. In Guatemala, maritime matters have not had the priorities that they deserve and the concerned Ministries also have to deal with many other non-maritime matters due to the simple fact that these affect the common man on a day-to-day basis. For example, it is common in many countries to make the Ministry of Transport or Communications responsible for maritime matters. In such cases the ministry is naturally pre-occupied with matters pertaining to road transport or the telephone/wireless services, instead of focusing on maritime activities and matters. As a result Guatemala does not have a real control of maritime activities and does not have the proper legal bases to regulate maritime matters in its maritime jurisdiction.

The intervention of different Ministries without the necessary guidelines, politics, motivation and adequately trained professionals gives as result the effect of having a visible demurral in the paper work. Also presents the risk for administrative corruption, product of the manipulation by many hands; this at the end produces an administrative chaos; which instead of benefit the Guatemalan maritime development it restraints it. The current maritime authority in Guatemala are executed through various Ministries and Governmental Agencies (see Figure 4) that utilise the legal regime at the national level and international level (for listing see Appendix E). Guatemala's informal maritime safety administration organisation and functions will be described below.

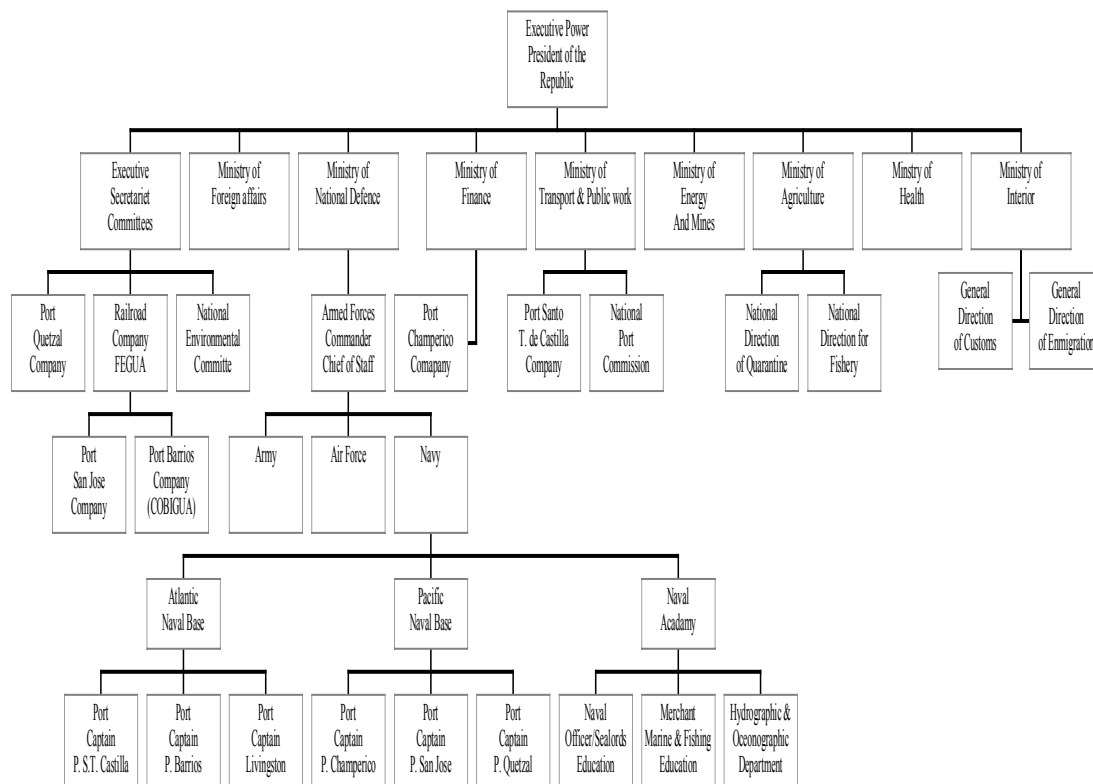


Figure 4 Existing Guatemalan In-formal Maritime Safety Administration

Source: Nowell P. (1999)

2.2.1 The Ministry of Defence (Within it the Navy):

Within the organisation of the government, the Armed Forces are found located in the National Ministry of Defence reporting directly to the President of the Executive branch. The Constitutional President of the Republic, according to the present political constitution, has the functions of General Commander of the Armed Forces.

Also by what is specified in the “Political Constitution of the Republic of Guatemala”, the Armed Forces have received the name of “Guatemalan Army” and consist of three forces: land, air and sea. The Navy has a very clear concept of the importance of Guatemalan maritime jurisdiction. It handles maritime control and safety through the legal use of a series of constitutional articles, presidential decrees and regulations, congressional laws and decrees and ministerial decrees and regulations and international conventions. In order to execute its actions in the maritime jurisdiction it can guarantee the development of the country’s maritime interests, the most important being the following:

Article 142: Of the Constitution of the Republic of Guatemala: The state exercises full sovereignty over:

- a. Its territory integrated by its soil, subsoil, interior waters, territorial sea, in the extension that is fixed by the law and in the aerial space that extends over the same.
- b. The Contiguous zone of the adjacent sea to the territorial sea, for the exercise of determine activities by the international law; and
- c. The natural resources (living and non-living) of the maritime soil and subsoil and of the existing in the adjacent waters of the coast out side the territorial sea, which constitute the exclusive economic zone, in the extension promulgated by law, with compliance with international practice.

Article 244: The Guatemalan Army is an institution designated to maintain the independence, the sovereignty and the honour of Guatemala, the integrity of its territory, the internal and external peace and security.

Decree 20-76 of the Congress of the Republic-

Article 7: In the Guatemalan delegations to the conferences that are related to maritime matters it will assist, in the quality of delegate, a qualified officer of the Naval Defence Force.

Article 8: The Armed Forces will be in-charge of guarding the rights of the Republic over its territorial sea and over its exclusive economic zone.

Decree of 21 of April of 1939, regulates the authority of the Port Captain of the Port, and the registration and certificates of vessel and crafts, Certificates of competence for Officers and Crews, Prevention of Pollution, and others matters related to maritime affairs.

The Constitution of the Republic of Guatemala has very well specified the missions of the armed forces. From the general mission of the Armed Forces the missions of each force is established. Therefore the Navy's mission is taken out of the general mission of the Guatemalan Armed Forces. Out of the general missions of the Navy, eighteen specific tasks regulate its existence. Of these eighteen specific tasks there are eight that are relevant to this study because they are within the basic functions established by the International Maritime Organisation (IMO); which can be used for a Maritime Safety Administration. Since the other eight missions are eminently military they will not be discussed. These eight maritime missions are accomplished by the Navy through the Naval Bases, Harbour Master, Naval Police and the Guatemalan Naval School; which are as follows (for detail of the mission see Appendix F):

- ❑ Guarantees the promotion of the development of the Guatemalan maritime interests.
- ❑ Comply and enforce the international maritime treaties and conventions sign and ratified by Guatemala.
- ❑ Effectuate operations of fiscal control, immigration, and sanitary in the territorial sea, contiguous zone and exclusive economic zone.
- ❑ Effectuate control of the restricted fishing periods and species in extinction in the territorial sea, contiguous zone and exclusive economic zone.
- ❑ Effectuate the control of the contamination/pollution of the maritime environment.
- ❑ The preservation of human life at sea.
- ❑ Maritime administration.
- ❑ Maritime security.

2.2.2 The Ministry of Communications, Transportation and Public Works

The ports are autonomous state companies, decentralised, with their own judicial personality, is loosely tied to the executive power is through the Ministry of Transport. The ports count with the organisational structure that more likely tend to increased the efficiency of the activities carry out, through its head units like the Board of Directors, Directorate, Sub-Directorate, of administration units like the Internal Audit, Port Development, Secretary General, and Judicial Advisory, and of operational units like the Departments and Section that conform the company.

Each port's administrative management is responsible for the operation, maintenance and repair of the port, aids to navigation, docks, equipment for the operation of the port (own or lease to a private company.), docks, storage facilities (most owned by or leased to a private company.), tug boats (leased to a private company.), utilities for the ships; and the pilot service which is in concession to Naval Officers.

The Ministry of Transport has created the National Port Commission of Guatemala, this agency's main function is to advise the port and state institution that deals with commercial port matters. Its members are representatives of the different National Port Companies, the Private Sector, and the Ministries of Finance, Economy and

Transport. However, in reality this Commission does not function properly. This is due to the government's political un-willingness to give the corresponding backup and the necessary resources. At the same time, the different Boards and Directors of the National Port Companies do not accept or even try to work with this Commission in a more serious and professional manner, because of the mentality that they would then lose power over their port.

At this point it is important to point out that the ports are managed by civilians and not by military personnel. This is a law, written under the Political Constitution of the Republic, which indicates: "Article 131: The land terminals, airports and commercial maritime ports, are consider goods of common public used and as well as the transport services, are only subject to the jurisdiction of the civil authority".

It is externally important for the good of the country's economy that a maritime administration been created, so it can deal with the port and shipping police of the country. This administration should of course be created under the jurisdiction of civilians, since it is mandated by the Constitution of the Republic as mentioned above. However, the maritime safety administration should be under the jurisdiction of the Ministry of Defence as it was described above. The difference of a maritime administration and a maritime safety administration will be describe more specifically later in this chapter.

2.2.3 The Ministry of Finance

Under its internal regime the Ministry of Finance is in charge of the management of Port Champerico; which as stated before is used only by private fishing companies and also for artisan fishing. Currently, it's installations are in precarious conditions. There are various governmental studies in making this port a modern port, but at the present time the government is focusing its attention on other matters. For instance this Ministry deals with the fiscal matters of the country and not with port matters. However, this Port should not be under the direction of this Ministry, this is one of the main reasons why this Port is an calamity state and is a hazard for human life and any type of vessels.

2.2.4 The Ministry of Energy and Mines

The Ministry of Energy and Mines is the one in-charge of the control and management of the licensing of exploration and exploitation of the non-living resources of the country, including both on land and sea resources also. The problem is that this Ministry does not have the adequate technical personnel to advise it in maritime matters. Therefore it is giving licences with out making the necessary scientific studies or surveys to protect and preserve the maritime natural resources.

2.2.5 The Ministry of Health and Social Wealth

Every time a ship docks in a Guatemalan port the Ministry of Health and Social Wealth designate a doctor to go on board together with the Port Captain to make the official inspection. This is done in order to check the physical and mental state of the crew and the possibility of any contagious disease. It relies on the assistance of the Port Captain to solve any problems on board.

2.2.6 The Ministry of the Interior

The Ministry of the Interior has under its responsibilities the General Directorate of Customs, which is in charge of the fiscal exports and imports of the country. Also it is responsible for the General Directorate of Immigration, which deals with illegal and legal immigrants of the state.

2.2.6.1 The General Directorate of Customs

The General Directorate of Customs is the agency in-charge of verifying that the taxes on importation and exportation of merchandise are paid, in land border station, the airports and the commercial ports, but it has delegated some responsibilities to the Navy in maritime matters as mentioned in the Custom's Code (Decree 20-64 of 1964).

Article 72: Regulates the functions of the Port Captain to which correspond in the branch of customs: control of the war elements and other prohibit articles, visit, with the representatives the vessel that are anchor in the port, give the necessary help required by the Custom authority, take the necessary provisions to prevent smuggling, verified the load and unload of cargo when ever estimate is convenient, know the clearance paper of the ship, give the clearance for the vessels to leave, stop any vessel from

leaving that do not comply with legal matters, give the necessary assistance of salvage to vessels in the coast, provide to Customs any observations to have a better service.

2.2.6.2 The General Directorate of Emigration

This controls the arrival and departure of emigrants by land, air and sea. The Port Captain in each Pacific Port is also the emigration authority. In the Atlantic Ports, at the present time, exists a representative of this agency that takes care of emigration matters. The Directorate of Emigration works very closely with the Navy when it comes to co-operation between the two organisations. The Navy has captured many illegal immigrants, mainly from China and Ecuador at the present time, which use the sea to try to reach the U.S.A., it works also together with this agency in relation to stowaways on board vessels.

2.2.7 The Ministry of Foreign Affairs

This Ministry is in charge of dealing with all international matters, especially with regards to treaties among other governments and international organisations. They are the ones that at the present time deal with maritime conventions, treaties and agreements. As it was mentioned before in Decree 20-76, the Navy is the agency that should represent the government when it comes to maritime matters. Nevertheless this Ministry is also involved, so a better co-operation should exist between these two organisations, which at the present time is not happening. International maritime conventions are being analysed and ratified by this Ministry, even though they do not count with technical personnel that have the necessary knowledge on these matters. Also the information is not passed on to the Navy, to the extreme that the Conventions are passed and the Navy does not know anything about it.

2.2.8 The Ministry of Agriculture

The Ministry of Agriculture is in charge of the fishing policy through the General Directorate of Fisheries and is also in charge of controlling against plagues in the goods that are imported by country. This Ministry manages these matters through the General Directorate of Fisheries and through the General Directorate of Quarantine.

2.2.8.1 The General Directorate of Fisheries

The General Directorate of Fisheries controls fishing and fishing licences, but in order to enforce its policies and controls in the lakes, rivers and at sea, it delegates this responsibility to the Navy to accomplish its mission. This Directorate does not have the resources (equipment/personnel) to do the proper job and this is why the Navy provides them with the necessary co-operation.

2.2.8.2 The General Directorate of Quarantine

The General Directorate of Quarantine verifies that the goods that have been imported are not infected or contaminated. In the ports and sea, it also relies on the Navy to help them when they need it, since it does not count with the necessary resources (Ships, helicopters, vehicles, others.)

2.2.9 The Guatemalan Railroad (FEGUA)

FEGUA is a de-centralised agency that works directly under the Executive Power. which is in charge of the management of Port Barrios (leased to a company called COBIGUA) and Port San Jose; the last one has the same infrastructure conditions as Port Champerico. FEGUA its self is going through a very precarious time, as the railroad system in Guatemala is a total disaster at the present time.

2.2.10 The National Commission for Protecting the Environment (CONAMA)

The law for the protection of the environment was passed in the Decree No. 68.86 of the Congress of the Republic. This law delegated this responsibility to CONAMA, in the following:

Chapter II, Article 20: It is created the National Commission for Protecting the Environment, is a governmental organisation that depends directly from the Presidency of the Republic, and its functions is to advise and co-ordinate all actions for the formulation and application of the national politics, for the protection and for the better of the environment, providing it through the corresponding Ministries, General Secretary of Economic Planing and decentralised agencies, autonomous, semi-autonomous, municipalities and the private sector of the country."

CONAMA is the agency in-charge of preventing and controlling the contamination of the environment, but in reality its activities are only focused on the protection of the land. In regards to the maritime environment, CONAMA does not have the

resources, knowledge and trained personnel to carry out maritime environmental activities. CONAMA depends on the Navy to manage the maritime environmental control/supervision of the navigable lakes and rivers or the coastal and sea activities.

2.3 Analysis of the present situation

Based on the information presented in this Chapter it can be said that the Republic of Guatemala is a maritime country since it has access to two oceans and it has commercial ports on both sides. Also it is a very rich country in natural marine resources, which can be lost if Guatemala does not establish its borders of maritime jurisdiction, with its neighbouring countries. Today in Guatemala a number of institutions deal with maritime matters; however these institutions do it in an informal way. Guatemala as a maritime country needs to restructure and organise its institutions so they are more oriented to deal with maritime activities in a more formal and progressive way.

The problem starts with the lack of political will and knowledge of the politicians that administer the country, and also the national agencies and private industry that are involve in maritime affairs do not have enough knowledge and equipment to handle these important situations. Therefore it is necessary to correct this problem, by centralising the maritime matters in the hands of the governmental entity that since the date of its foundation has executed this mission, even though it has done it with a maritime legislation limited in foundation. This would be the Ministry of Defence that, through the country's Naval Force, has been much more active then others in handling the Guatemalan maritime safety administration.

Now that it is clear that Guatemala needs to address in a much more formal way its maritime activities, the following distinction must be made between a Maritime Administration and a Maritime Safety Administration. In developed maritime countries the structures and the roles of the Maritime Administrations have been the results of circumstantial evolution and not necessarily planned from the beginning. Therefore, there are likely to be areas deserving improvement and/or strengthening. On the other hand, developing maritime countries, particularly those which are at the

early stages of development, can be said to have the advantage of creating pre-planned structures and functional approaches, provided that all concerned have proper understanding of the objectives, criteria and functions.

Vanchiswar P. S. (1996) differentiates the two as follows:

Maritime Administration: Are the functions that have to be assigned to it government's overall maritime (development) policy and duly reflected in its maritime legislation. (Maritime Development policy = Shipping policy: It is stated mostly by economics, Shipping policy may be defined as a totality of economic, legal and administrative measures by which the state influences the position of its fleet in the national economy and in the international freight market.) within the framework of the

Maritime Safety Administration: Is the specialised executive arm of a maritime government, irrespective of whether it is a develop country or a developing country, to implement or enforce the regulatory (and allied) functions embodied in the national maritime legislation, especially those pertaining to registration of ships, maritime safety, marine personnel, maritime casualty investigations and protection of the marine environment.

Taking the above definitions into consideration it is the opinion of the author that in Guatemala a formal maritime safety administration should be created in the Naval Force under the Ministry of Defence, and also a separate maritime administration, under the Ministry of Transport. However, since the author is studying a Master's Degree in Maritime Safety and Environmental Protection, this paper will only deal with implementation of the maritime safety administration, taking as models the MSAs of Chile, the United States of America and Sweden; in order to come to a conclusion, the author will make a suggestion of how the maritime safety administration shall be implemented in Guatemala. Taking also into consideration the maritime safety administration that already exists in the country and what can be implemented based on the cultural, social, geographical, political and economic matters, as well as three examples of maritime safety administration.

In the next chapters, different models of maritime safety administrations which in the opinion of the author, are the most successful in their respective regions, namely South America, North America and Europe will be discussed. These models are alike in some way but unique in others. For instance, among the South American

countries one can say that the Chilean maritime administration, officially known as the General Directorate of the Maritime Territory and the Merchant Marine (DIRECTEMAR), is the one that has developed more at the national and international level in its maritime activities. The DIRECTEMAR works under the Ministry of Defence, specifically under the Chilean Navy.

In North America the United States of America has delegated the responsibility of promoting maritime safety to the United States Coast Guard (USCG). The USCG carries out its missions under a full military structure, but operates under the Ministry of Transport in peace times. However, in times of conflict it operates directly and fully under the Ministry of Defence as a specialised service within the U.S. Navy.

In Europe the Swedish Maritime Administration (SMA), works under the Ministry of Economy. The SMA has distinguished itself, as a leader in formulating, maintaining and implementing new safety and environmental laws, regulations and requirements. Compared to the other European administrations it is a tidy, contained arrangement that functions very well.

CHAPTER THREE
EXAMPLES OF SUCCESSFUL MODELS OF MARITIME SAFETY
ADMINISTRATION IN: SOUTH AMERICA, NORTH AMERICA AND EUROPE

This Chapter will present three typical models of maritime safety administrations, each alike in some ways and thus unique in other matters. A description of these administrations will be presented, mainly their general aspects, missions, dependency, organisation and ambits of action. These are important matters to understand, because they give a very good idea of how each country is managing its maritime safety administration. As a result of this detailed description of each administration, comparisons will be made between them. These administrations will be those of Chile, the U.S.A. and Sweden. They will be compared in order to come up with applicable conclusions and recommendations for the implementation of the formal Guatemalan Maritime Safety Administrations in Chapter Four.

Chile has been chosen as the first example because out of all the maritime countries in Latin America, it has been by history, tradition and trade a maritime country. This has given Chile the power to promote and develop its maritime activities to an exceptional potential, putting Chile in the leadership of Latin American countries in the way it manages its maritime economy and activities at a national level and at the international level in IMO/ILO.

Another important reason is because Chile suffered a similar political situation (cold war) as Guatemala, Chile has implemented the maritime safety administration called the General Directorate of the Maritime Territory and the Merchant Marine (DIRECTEMAR) under the Ministry of Defence, DIRECTEMAR works in an excellent manner. The reason this matter is touch upon is because, as mentioned in the previous Chapter, in Guatemala today exists the mentality by some political and non-governmental groups that the military should only be inside the garrisons. This

document, from the author's point of view, will demonstrate that nothing is wrong with having a maritime safety administration under the Ministry of Defence.

The next administration that will be presented is the United States Coast Guard (USCG) which works under the Ministry of Transportation but is managed by a full military arrangement. The USCG is the leading maritime safety administration in the world with more than 200 years of maritime history. As a matter of fact, it is the only one that has major operations of its mission all over the world. Its capabilities in resources and personnel are enormous in order to cover and guard its huge maritime jurisdiction and international missions that it has to perform. In fact this unique administration in times of war passes under the Ministry of Defence. Comparing the way this agency works to how Guatemala can manage its maritime affairs, it looks very promising, but the problem is that Guatemala is a developing country and cannot afford the same luxury as the United States of America in having both a Navy and a Coast Guard for, jurisdictional, social reasons, economical and for maintaining the strategic balance of power in the region.

The other is a European model the Swedish Maritime Administration (SMA), to be more specific. The Swedes, some historians said, were among the first sailors (Vikings) to navigate in the world. This maritime country, by history, has implemented a tight and compact maritime organisation, which is managed under the Ministry of Communication and is administrated by civilians. The SMA is one of the leading administrations within Sweden and at the international level in Europe to promote and develop new safety, security and environmental policies for the maritime as well as matters being handled in the IMO. The SMA is more of a regulatory administrative agency with some operations being done, mainly the inspection of ships and aids to navigation. However, even though Sweden has both a Navy and a Coast Guard, the SMA relies more on the Swedish Coast Guard for maritime operation and contingencies that occur. Hence, because Sweden has about the same population and more or less the same resources as Guatemala, it is ideal to take this administration as Guatemala's example. The final analysis between DIRECTEMAR, USCG, SMA and the present situation will be done to take

the best points of each and implement then in Chapter Four for Guatemala were applicable.

3.1 The Chilean General Directorate of the Maritime Territory and the Merchant Marine (DIRECTEMAR).

3.1.1 General aspects:

Due to its essential maritime geographical condition in the South American continent (see Figure 5), Chile uses, for its development and subsistence, as much use of maritime ways, exploration and exploitation of the maritime resources, as optimally possible on its jurisdiction (see Figure 6). When comparing the success of Chile's maritime economy, one can conclude from the information given in the previous chapter that Guatemala is limiting its economy by not doing the same development of its maritime resources and activities as Chile has so well.



Figure 5 Chile's Geographical Position

Source: Valenzuela I. (1994).

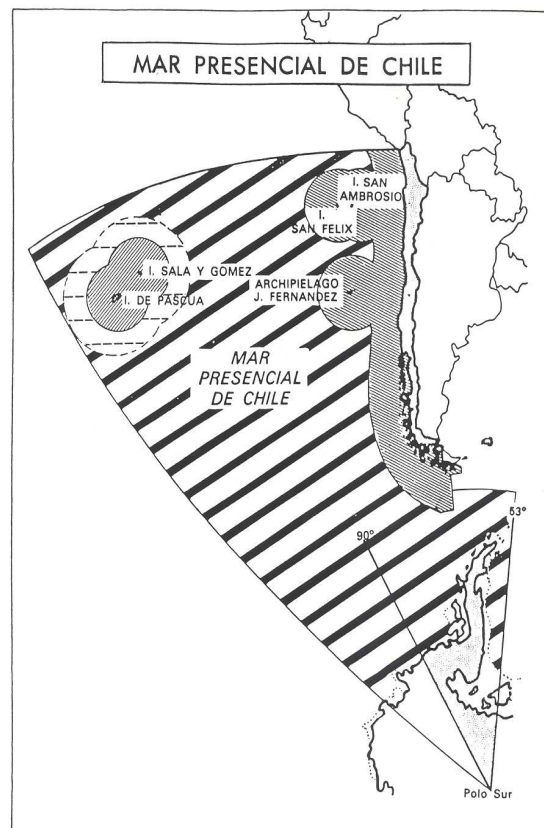


Figure 6 Chile's Maritime Jurisdiction

Source: Valenzuela I. (1994).

Since the middle of the 19th century its original Navigation Law has governed the maritime authority in Chile. At the time it was created, responsibility for the registration of vessels was granted to the Commanding General of the Navy; who works under the Ministry of Defence (see Figure 7). In contrast to Chile, Guatemala, a Central American nation, does not have such a long maritime history due to historical reasons. Nevertheless, Guatemala implemented the "Decree of 21 of April of 1939" for the Port Captain regulations, which delegated the same responsibility as above to the Guatemalan Naval Force. Again, for historical reasons (cold war), the Navy did not have the government's political willingness or the support necessary to develop ship registration like Chile has done so well.

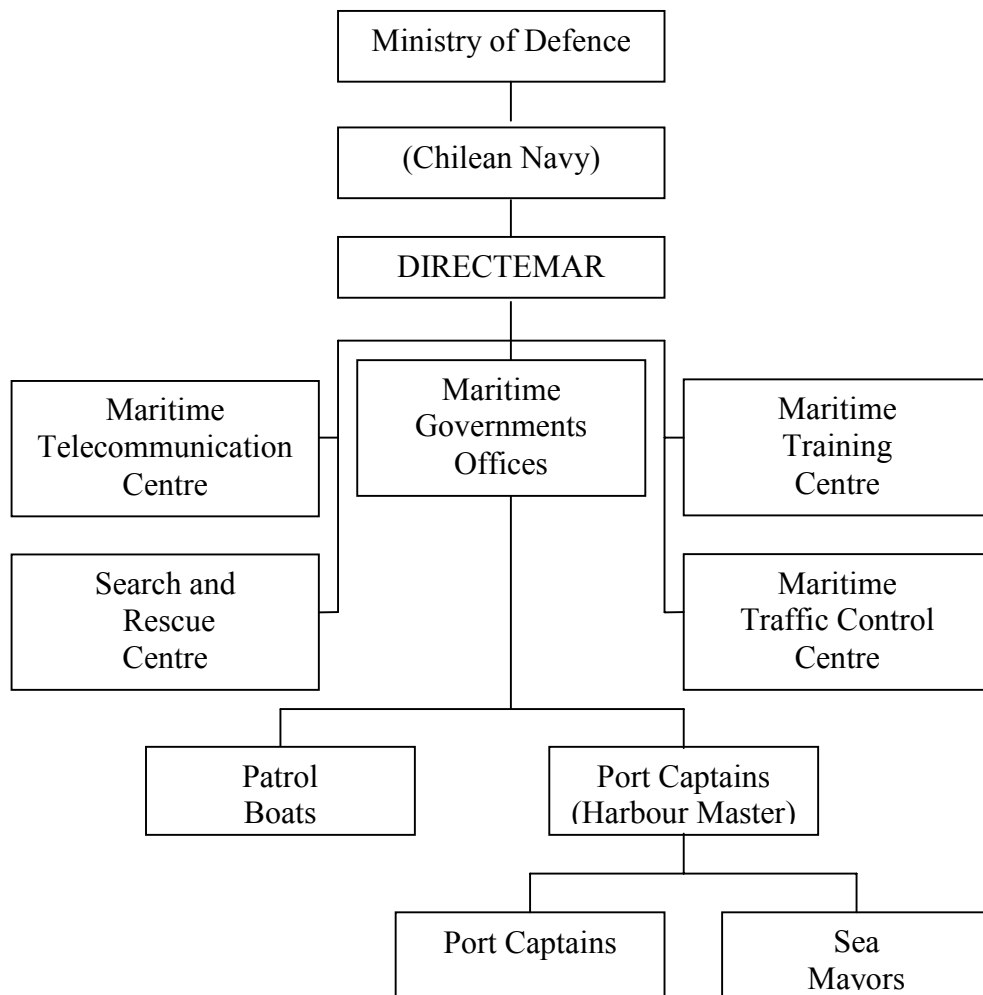


Figure 7 Chile's DIRECTEMAR Organisation

Source: Böke R. (1993)

The Maritime administration in a Chile has a de-centralised organisation. Its maritime jurisdictions are divided into 205 Maritime Municipalities, 56 Port Captains Office, 16 Maritime Governor Offices and the central headquarters is known as the General Directorate of the Maritime Territory and the Merchant Marine DIRECTEMAR (see Figure 8). Up to today DIRECTEMAR is responsible for the administration and control of the merchant marine of the country. As a matter of fact, there is some resembles in how both Chile and Guatemala has Port Captains in each port although Guatemala does not have a central headquarters. The lack of leadership has left maritime matters in Guatemala without guidelines or a clear policy to be followed. It is like a compass with out a heading. Chile on the other hand has well distributed its maritime authority in its national maritime jurisdiction with one central headquarters that puts a heading on the compass.

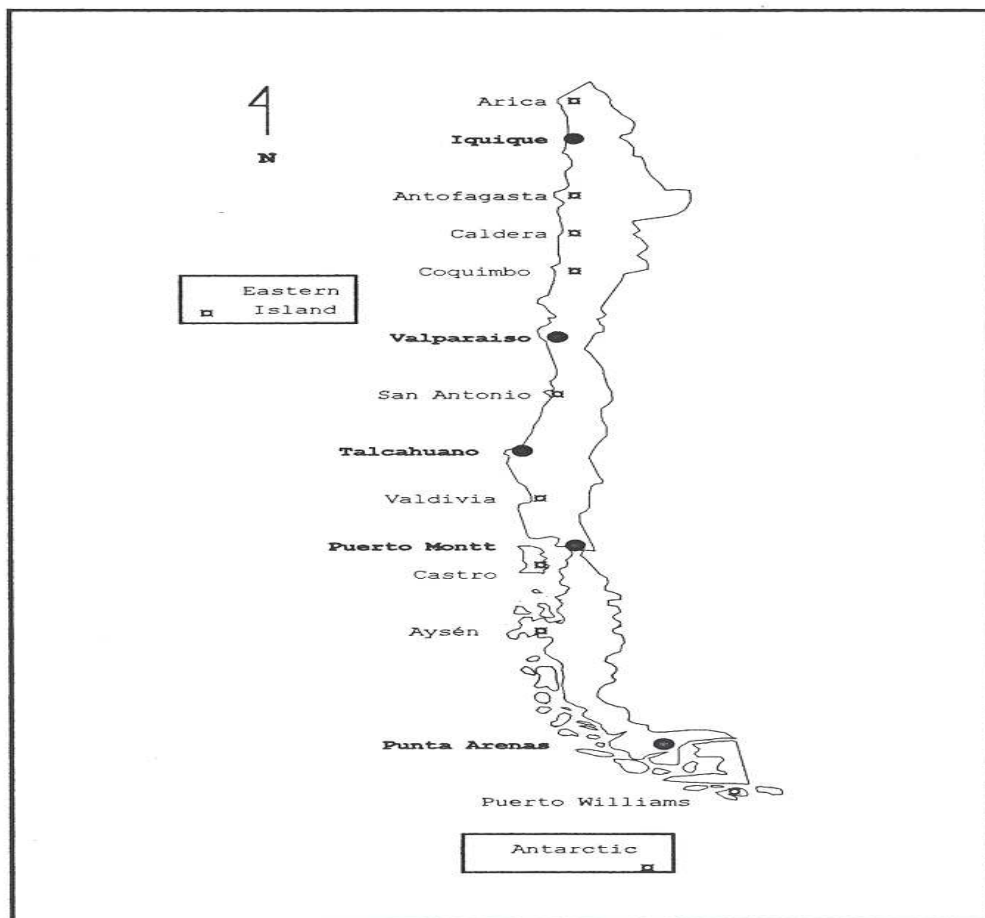


Figure 8 Chile's DIRECTEMAR Governors Offices

Source: Böke R. (1993)

The DIRECTEMAR's activities have their legal basis in numerous laws, acts, degrees and international conventions dealing with the maritime area from navigation to fishing and from wrecks to carriage of cargo (list see Appendix G). In addition, when comparing Chile to Guatemala a clear disproportion of national regime and international conventions ratified by Guatemala exist (see Appendix E). At the present time, the national regime of Guatemala is too weak and the international conventions are not implemented it all. Guatemala needs to address this problem of the lack of legal regime in order to protect and develop its maritime interest and at the same time can motivate the development of the economy, as well as Chile has developed theirs.

3.1.2 Mission

For the purpose of this exercise, the functions of the national maritime authority, the DIRECTEMAR, is responsible for: "Safeguarding the safety of maritime navigation, fluvial and lake traffic; for the protection of human life in the sea, rivers and navigable lakes; for the goods and resources of the national maritime zone, its coasts and shores; as well as the protection of the national maritime interest. With the purpose of contributing to the development of the maritime power of the country" (<http://www.directemar.cl.html>).

In order for the DIRECTEMAR to accomplish its mission, it have a well-structured organisation (see Figure 9). When analysing Chile's DIRECTEMAR's mission with Guatemala, the Navy is similar but, the problem in Guatemala is that as it was mention before there is no formal maritime safety administration, given as a result no organisational chart like the one Chile has.

3.1.3 Dependency:

The DIRECTEMAR comes under the direct supervision of the Commandant in Chief of the Navy without prejudice to the autonomy to which the DIRECTEMAR is entitled in its decisions in aspects express and defined in its organic legislation.

In matters of administrative character, the DIRECTEMAR complies with the dispositions, directives and instructions of the General Services Directorate of the

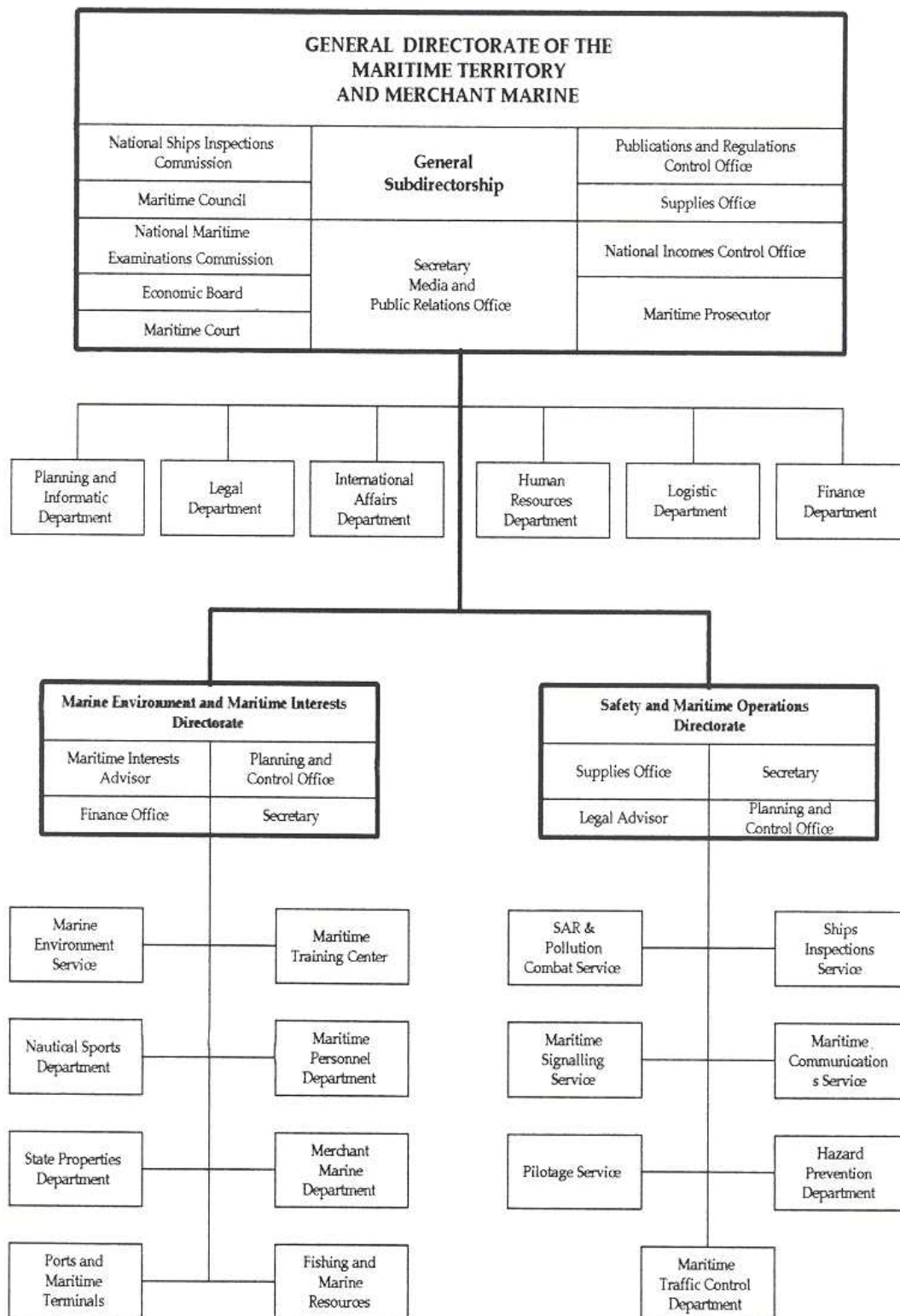


Figure. 9 Chile's Organisational Chart

Source: Valenzuela I. (1994)

Navy, in reference to equipment/material, and of the General Personnel Directorate of the Navy, in relation to its personnel. With reference to the national merchant marine, safety of human life at sea and control, security and discipline within the specific maritime jurisdiction of its Organic Law, DIRECTEMAR, enjoys autonomy in its decisions. When comparing the dependency of DIRECTEMAR in Chile with Guatemala, one has to remember that even though it does not have a formal maritime safety administration like Chile's, it does have, in an informal way, a maritime safety administration within the missions of the Guatemalan Navy. Guatemala can apply the same concept of dependency to a formal maritime safety administration like Chile has through its Navy. All it needs is the governmental, political, and internal ministerial back-up, and as the result it will get a stronger legal regime to attend the maritime matters like Chile does.

3.1.4 Ambits of action

Valenzuela (1994) wrote that, in the accomplishment of its mission, the DIRECTEMAR fundamentally performs the following eight ambits of action:

- ❑ Maritime safety
- ❑ Protection and safety of human life at sea
- ❑ Preservation and protection of the maritime environment
- ❑ Maritime control, security and discipline
- ❑ National merchant marine, including fishing, tourist and recreation activities
- ❑ Maritime representation of the Chilean state
- ❑ Maritime interests
- ❑ Naval operative support"

These ambits of action are the backbone of the DIRECTEMAR. As a matter of fact, all maritime safety administrations need to have their ambits of action very well specified in order to know what its mission really is. Next, a detailed and literal explanation of DIRECTEMAR's ambits of action will be given, not with a comparison to Guatemala, does not have a clear picture of maritime affairs and at the present time is not applying or managing the concept of these maritime ambits of action.

3.1.4.1 Maritime safety

This ambit of action is considered by DIRECTEMAR at its most relevant, and it is because of this concept that the national maritime authority exists. Through the different services organised under it, the DIRECTEMAR promotes the safety of navigation, human life, port activities, maritime industries/infrastructures and merchant vessels; fishing boats and sport craft. With the final purpose of permitting the safe present of man at sea, minimised the impact over the maritime environment and to contribute to the effective and rational occupation. As well as avoiding any type of loss or damage. It is divided in the following way (see Figure 10):

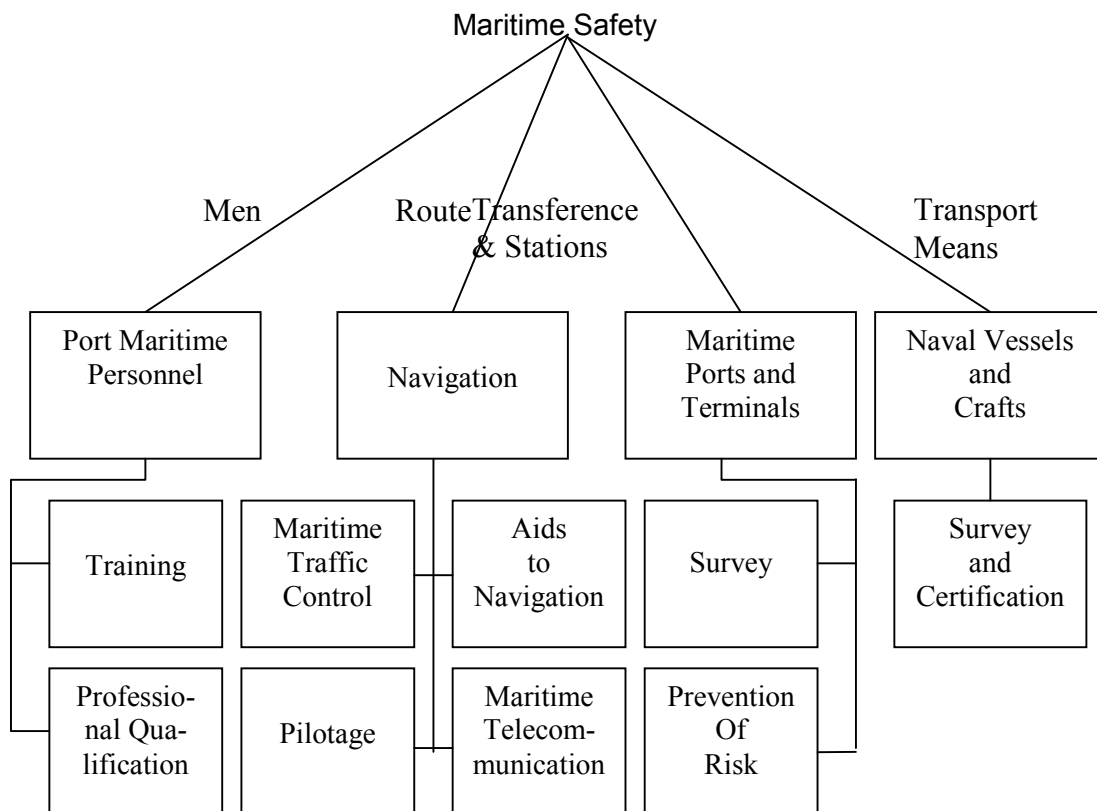


Figure 10 Maritime Safety Ambit of Action

Source: Gracia L. (1999)

- **Port and maritime personnel staff:**
- **Training (maritime personnel)**

Training that is given by the DIRECTEMAR, results in qualified and trained officers and seamen for the merchant marine vessels and special vessels, under the umbrella of maritime international standards (STCW/95), in the Maritime Centre

Institute and the Naval Academy. DIRECTEMAR does this by demanding high standards of performance, creating an ideal professional for the maritime personnel. Its main purpose is to accomplish its efficient performance especially when it comes to safety aspects.

– **Professional qualification**

This is done by the DIRECTEMAR, by determining, maintaining and approving the general orientations of the study programs in the area of prevention of risk and maritime safety, which are derived the corresponding professional standards, even if these courses are thought by civilian public and private organisations. Therefore DIRECTEMAR can control the quality of knowledge professional studies of the personnel that work on board merchant ships, fishing ships, tourism/recreational ships and the rest of the personnel in maritime ports. Once seafarers have complied with the requirements asked by DIRECTEMAR, they can receive their certificates, licences and matriculations; which permits them to develop their respective maritime duties.

• **Navigation**

– **Maritime traffic control**

Chile has a computerised system that allows the administration to know the position and destination of all vessels at all times: in jurisdictional waters = vessels from all flags, in foreign waters = Chilean vessels, in total + - 11,000 vessels. It constitutes the basic function to support any activities which have to be done over any ship, for safe navigation, maritime search and rescue, maritime police or for the protection of the maritime environment. For its operation in real time, it has an online computerised system covering the whole country.

– **Aids to navigation**

This is a service that provides security and expedites maritime, lake and fluvial navigation routes, with the purpose of contributing to maritime safety. It consists of visual and electronic systems that assist the navigator in knowing his position, locate dangers and set their course track for navigation. The Chilean aids to the navigation

system complies with the international norms recommended by the International Association of Light House Authority (IALA) and the I.M.O.

– **Pilotage**

This is the pilot service offer by DIRECTEMAR, involves providing highly experienced pilots of great experience to professionally advise the national and foreign merchant captains, in navigation through channels and in manoeuvres executed for the docking of vessels in the national ports.

– **Maritime communications**

DIRECTEMAR exercises technical and administrative control on the communication network for the private maritime industry network including shipping, fishing and sports; regarding the use of assign frequencies, procedures to follow, types of emission and fees for charge. It provides the service of public and official mail from and to the vessels in any part of the world. It divulges weather reports and information publishing the notice to mariners. It also supports, with communications, the Maritime Search and Rescue Service.

• **Maritime ports and terminals**

– **Inspection and prevention of risks**

As the highest maritime authority and in consequence with the Maritime Safety Policy, DIRECTEMAR carries out this technical service, for the prevention of accidents on board vessels, arriving in ports, industries, terminals, fishing, sports and other maritime activities. This task is of normative and executive character in its compliance with its resolutions. Some of the inspections and risk prevention done are with port workers, accidents of the personnel, commercial ports, specific and general docks, solid/liquid bulk terminals, sites/docks for fishing, sport craft and docks, and ramps.

– **Survey and certificates**

This service consists of surveying and certifying according to the national legislation and international conventions subscribed by the Chilean government, the operative state, the naval construction and the conditions and safety of the vessels and of the

crew that work on board. Some of the inspections done are those for crew documentation, vessel hull inspection, structure and engine, safety appliances on board, the conditions of the cargo on board and the communication equipment.

3.1.4.2 Protection and safety of human life at sea.

This ambit concentrates all those activities done by the DIRECTEMAR for the rescue and saving of human life that is in danger at sea are on navigable lakes and rivers with its national jurisdiction. It also include security on the littoral beaches and bathing resorts (see Figure 11).

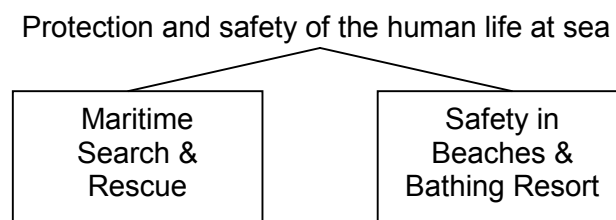


Figure 11 Protection and safety of the human life at sea Ambit of Action

Source: Gracia L. (1999)

- **Maritime search and rescue**

The rescue and protection of human life at sea, is obtained through adequate actions of “maritime search and rescue”. The DIRECTEMAR have its own or private resources, for reaching the location of the maritime calamity and for the saving of human life in peril. This service operates through five centre zones that have available adequate floating, air and land resources as well as maritime communication resources. Any maritime calamity or accident shall be analysed and evaluated, with the purpose of eliminating the causes that originated it and for perfecting their search and rescue procedures.

- **Safety in beaches and bathing resort**

A plan named “Civil Protection Plan for Beaches and Bathing Resources” is activated annually all along the littoral, from the 15 of December to the 15 of March. This plan's purpose is to provide protection and safety at the beaches and bathing resources during the summer time.

3.1.4.3 Preservation and protection of the maritime environment.

For the purpose of contributing to the preservation of the maritime ecosystems. DIRECTEMAR, is oriented to keep vigil over the quality of the maritime environment at sea all along the coastal littoral, and at ports, bays, rivers and lakes; which are navigable in the country. It minimises its risk conditions, through the prevention, control and combat of contamination and pollution (see Figure 12).

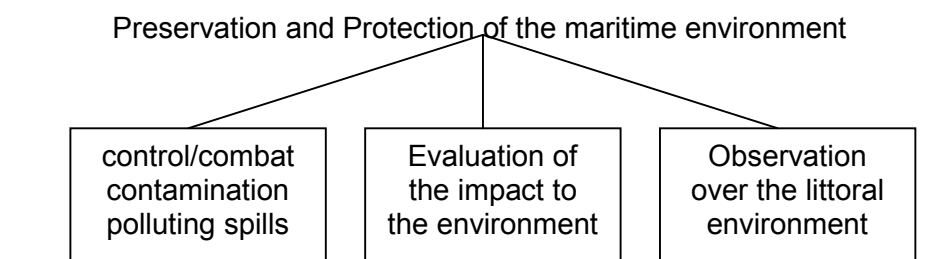


Figure 12 Preservation and Protection of the maritime environment.

Source: Gracia L. (1999)

- **Control and combating of contamination and polluting spills**

The DIRECTEMAR grants this service; which consists of actions designated for the preservation of the environment from pollution and from spills of any kind of noxious substance to the maritime ecosystem. In the case of an existing spill, DIRECTEMAR will combat it and control it. For this operation, DIRECTEMAR has five principle centres all along the littoral of the country; it has qualified personnel and all the necessary equipment to confront any emergency. At the same time DIRECTEMAR has establish a National Contingency Plan, which have special personnel and equipment for the combating of any contamination.

- **Evaluation of the impact to the environment**

The DIRECTEMAR has established norms related to the evaluation of the impact on the environment. It is based on the Navigation Law, Title IX, which is the national principal legal body about the maritime environment. The Title IX is the superior maritime authority norm regarding contamination produced by the industries and coastal cities that spills its residues along the littoral. It is the minimum program of evaluation of the impact on the environment, established by the DIRECTEMAR Resolution (Ord. 12.600/500 of 21 August 1987). The Rules of Contamination

recently approved and published in the D.O. No. 34419 of 18 November 1992, gives the power to the maritime authority the action to supervise, control and sanction any environmental pollution.

- **Observation over the littoral environment**

The Plan for Observation over the Littoral Environment was created in 1989 by the DIRECTEMAR. The objective of these plans is to know the base level of concentration of the principal contaminates which enter the sea in a chronic or persistent form. This plan allows the DIRECTEMAR to take effective preventive measures; besides permanently evaluated the state of contamination of the bodies in the water, under the jurisdiction of the maritime authority.

3.1.4.4 Maritime control, security and discipline.

The objective of the Maritime Control, Security and Discipline is to establish the order, security and discipline in those activities that are being done in the jurisdiction of the maritime authority with the purpose of contributing to its harmonic development, foment the maritime interest and to minimise the risks to the safety in Chile's jurisdictional maritime area.

At the same time, the maritime authority in its role of public authority in the maritime-ports ambit also considers the control and supervision of the fiscal goods and of the norms that regulates the development of maritime activities through the exercise of the Maritime Police. With the purpose of establishing and maintaining the order in its jurisdiction (see Figure 13).

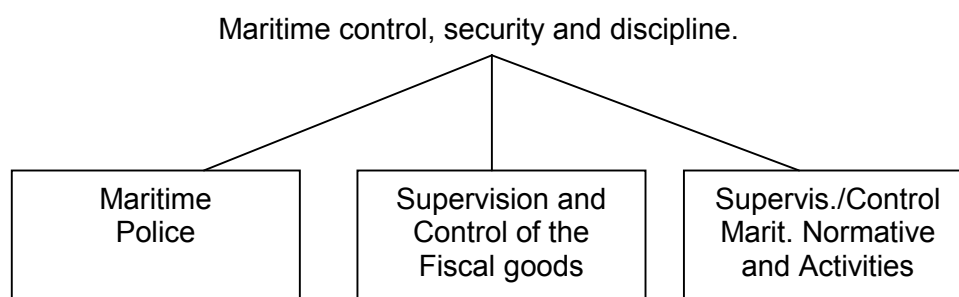


Figure 13 Maritime control, security and discipline Ambit of Action

Source: Gracia L. (1999)

- **Maritime police**

The Maritime Police is an essential instrument for accomplishing the mission of the DIRECTEMAR. The Maritime Police are in charge of safeguarding the national goods and resources within Chile's maritime jurisdiction. The Maritime Police also prevent contraband/smuggling, illegal traffic of drugs and emigrants, as well as maintaining the protection, control and supervision of property and human life at sea along the littoral and in the port areas. In regards to this ambit of action the Maritime Police work in coordination with the Customs, Emigration, Police and other governmental agencies involved in these matters.

- **Supervision and control of the fiscal goods**

Action oriented to guard the national goods and resources that are within maritime jurisdiction. It contemplates the administration of the fiscal goods and the super vigilance of fishing activities through coordination with other fiscal organizations.

- **Supervision and control of the maritime normative and activities**

It's the exercise of the regulations of the Superior Maritime Authority. It's principal functions are:

- ❑ Control and fiscal compliance of the maritime normative establish by the state of Chile
- ❑ Control of the ideal maritime personnel, that carry maritime activities
- ❑ Sustanciate administrative summaries in case of maritime accidents and catastrophes
- ❑ Sanction faults of professional character, of order, safety and discipline, occurring in maritime duties and port duties, and impose fines when ever necessary

3.1.4.5 National merchant marine, fishing and tourist/recreation activities

The DIRECTEMAR accomplishes these functions through professional links, as well as through technical control and protection, with the purpose of contributing to strengthening the development of the country and to contribute to the growth of the activities of fishing exploitation, marine tourism and recreation, and especially to the merchant marine (see Figure 14).

Chile's merchant marine, fishing, tourist/ recreation activities

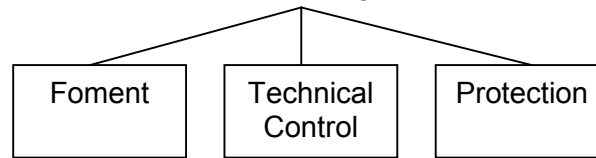


Fig. 14 Chile's merchant marine, fishing, tourist/ recreation activities.

Source: Gracia L. (1999)

3.1.4.6 Maritime representation of the Chilean state.

According to what is established in the Navigation Law, the DIRECTEMAR has the official representation of the state in professional and technical matters or meetings in which the above law has competency.

Consequently along with what was mentioned in the above paragraph, and other legal norms in this area, the DIRECTEMAR, as the superior maritime authority, has to maintain relationships with national organisations, for example, Law Commission to Foment the Merchant Marine, National Council of Fishing, Special Studies Eventual Commission, Narcotic, Ports and the Environment. At the international level with organisations, for example IMO, ILO, WMU, Operative Network of Regional Co-operation of Maritime Matters, South Pacific Permanent Commission, International Association for Maritime Aids to Navigation, International Organisation for Communication by Satellite and Search and Rescue System by Satellite related to its maritime ambits. It has a main purpose, to guard the interest of the country in international matters.

3.1.4.7 Maritime interest

The Maritime Interest is accomplished by fomenting and protecting the Maritime Interest through regulations, with the goal of contributing to their harmonic development and the effective occupation of the sea (see Figure 15).

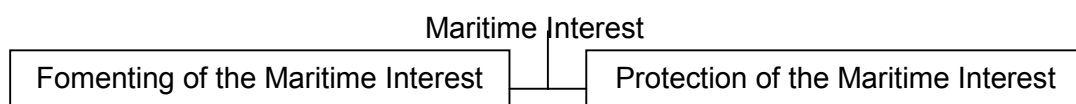


Figure 15 Maritime Interest Ambit of Action

Source: Gracia L. (1999)

This involves those activities of exploitation of the natural resources, of the use of the sea as a communication link, of recreation and of strategic influence and power that is done by man for obtaining social politics or scientific benefits

3.1.4.8 Naval operative support

The Naval Operative Support is oriented to satisfy the institutional requirements, proper to the Chilean Navy, in its role as an institutional defence. The Naval Operative Support have as its main objective to contribute to the maintenance of the defence while in peace times, crisis or war (see Figure 16).

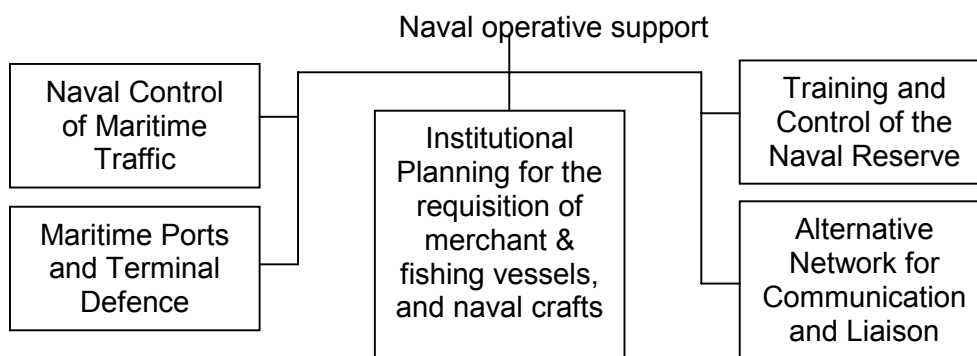


Figure 16 Naval Operative Support Ambit of Action

Source: Gracia L. (1999)

- **Naval control of maritime traffic**

This activity characterises itself with the goal of providing safety to merchant vessel traffic, with the purpose of achieving success in the transport of logistics, which is considered a vital aspect of the national strategic effort or with other allied countries. This activity is developed by the national organisation of naval control of maritime traffic, whose structure is based principally on the capacity of the executing organs of the DIRECTEMAR.

- **Maritime ports and terminal defence**

This is the principal strategy for the protection and defence of the maritime ports and terminals of the state, whether in peace times or in war times, whose main objective is to warranty the operations of all its elements, whether fixed or mobile.

- **Institutional plan for the requisition of merchant & fishing vessels, and naval crafts**

This plan takes into consideration the requisition of merchant & fishing vessels and naval craft, for the integral defence of the country, but mainly for providing logistic services to its contingencies.

- **Alternative network for communication and liaison**

The network was created to handle crucial situations when the principal network is no longer available or is not convenient to be used. Communication is vital for defence and commercial reasons.

- **Training and control of the naval reserve**

The Naval Reserve is an essential force for the defence of the country, and at the same time its members are educated in maritime safety and environmental protection.

3.2 The North American Model, The United States Coast Guard (USCG).

The USA today has such a enormous economical lead over the majority of countries of the world, because it has utilised all of its natural (specially the marine resources) and human resources to their maximum potential and exercises an open trade/commerce economy. The USA has a well establish maritime economical policy through its Maritime Administration (MARAD) and a well established maritime safety administration, which is the United States Coast Guard. The USCG will be the only one described for the benefit of this dissertation. These two agencies have provided the right economical policy and a safe and secure maritime environment for the national level as well as for the international trade/commerce level. The USCG is one of the strictest maritime safety administrations, if not the strictest in the world. The USCG in the majority of cases implements laws and regulations that are even more rigid then the IMO and it has the highest penalties for maritime calamities in the maritime world (list see <http://www.uscg.mil.html>). Furthermore, when comparing Chile to the USA, it can be clearly seen that Chile uses the same pattern of taking advantage of the resources it has for the benefit of Chile's economy. On

the other hand, even though Guatemala has not managed its natural and human resources as well and its economy is not as strong as it should be, the maritime activities are being carried out by different governmental agencies in an informal way. As a result the maritime activities and economy are not being managed in an adequate and proper manner and this cripples the economy of the country.

3.2.1 General aspects:

The United States of America is geographically located in North America and it has coasts on both oceans, the Pacific and the Atlantic (see Figure 17). The United States' experience in maritime trade and regulation is reflected in the over 200 year history of the USCG. This long evolution of the USCG exemplifies an organisation that, though created to address the needs of late eighteenth century maritime trade, has changed to meet the needs, priorities, and capabilities of the modern state (see Figure 18). In contrast to the USA's long maritime history and well-developed maritime economy, Guatemala, even though it does not have a long maritime history, and a well-oriented maritime policy has managed for instance, to have and maintain many maritime matters, not to the best degree possible. Nevertheless it has a maritime economy which is very necessary for the country's economy as a whole. Consequently Guatemala needs to learn from the USA and also from Chile



Figure No. 17 The United States of America Geographical Location

Source: CIA-The World Fact Book (1999)

in the way maritime matters and activities are handled and managed. In fact, in order to learn from the USA, let's look at what the USCG is doing to maintain a safe, secure and protected maritime environment in a detailed way, thus seeing what can be implemented in Guatemala for its benefit.

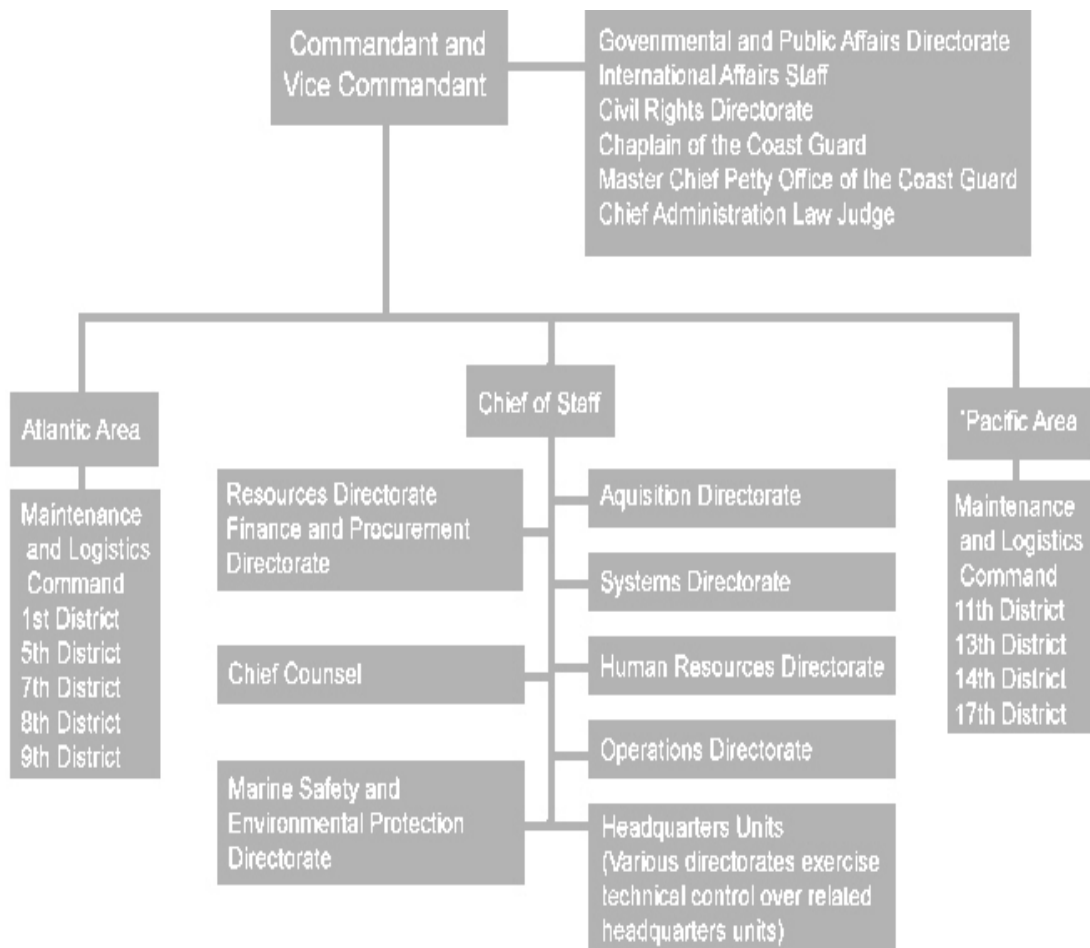


Figure 18 USCG Modern Organisation

Source: <http://www.uscg.mil.html> (2000)

Operationally, the USCG's jurisdiction (see Figure 19), is divided into two area commands, the Atlantic and Pacific, each of which is divided in to smaller district commands followed by shore facilities, air stations, marine safety offices, small cutters and groups of small boat stations throughout the United States (se Figure 20). Large ships report directly to the two area commands. Even though the USA has more maritime jurisdiction then Chile, each have divided its maritime jurisdiction

by specific areas/districts or governors/port captain offices. It really does not matter what these important things are called, the fact is that it is well-organised in the most suitable way for the country. On the other hand, Guatemala divides its maritime jurisdiction into Regions/Naval Bases, Shore units and Port Captains offices. The problem is that since there is no maritime safety administration agency to leader and co-ordinate, each region does what it thinks is best, lacking a national maritime policy for the betterment of the country's economy.



Figure 19 USCG Atlantic and Pacific Areas

Source: <http://www.uscg.mil.html> (2000)

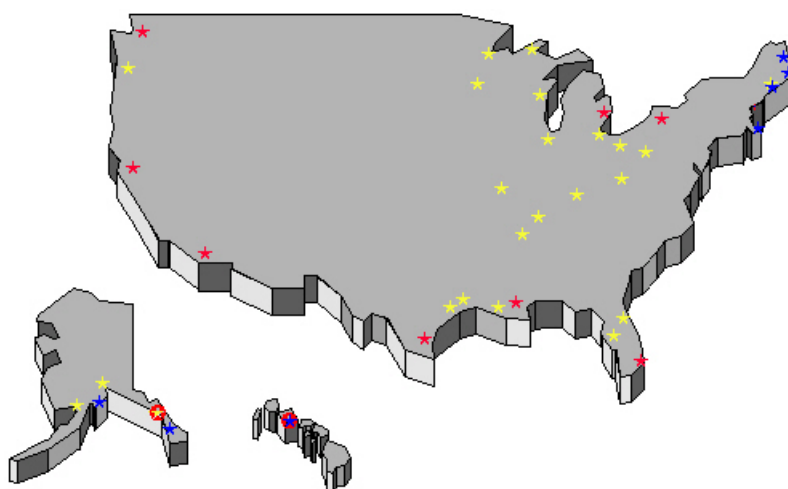


Figure 20 USCG District Commands and Shore Facilities

Source: <http://www.uscg.mil.html> (2000)

3.2.2 Mission

The USCG has as a mission to protect the U.S.A. public's most basic needs: their safety and security, the environment, and their economy (<http://www.uscg.mil.html>). The USCG is very direct and plain speaking. In comparing the USCG's mission to Chile's DIRECTEMAR, both cover the same objectives and purpose in a global and very good way. However, looking at Guatemala the maritime mission is not well defined, since many agencies are involved which each have different missions that are not well oriented to meet the necessary objectives and goals needed to develop its maritime activities. Consequently, Guatemala needs to develop a common mission under an agency in order to administrate and manage its maritime activities to provide the right maritime environment for its economy and to develop much better.

3.2.3 Dependency

The key to the evolution of the USCG's missions and roles is its dual mandate: the USCG is both a regulatory agency and a military service. As a military service, the Coast Guard plays an important role in national defence. During peacetime, however the Coast Guard's regulatory role takes priority. The USCG is one of the five armed forces of the United States of America but the USCG in peace times is structured within the U.S. Department of Transportation, not under the U.S. Department of Defence. However, when war is declared or when directed by the President, the USCG becomes part of the Navy. In the author's opinion, even though the USCG works under the Ministry of Transportation, in reality it works under a full military structure. In fact, it works just as DIRECTEMAR in Chile, which is under the Ministry of Defence but it has autonomy when it comes to dealing with its maritime mission. Both are practically separated from the armed forces when accomplishing their mission, nevertheless they have the back up of the Ministry of Defence whenever they need it, for example in case their resources are not sufficient or inadequate to deal with a situation. Thus and this is precisely my point, Guatemala can incorporate the GMSA into its Navy so it can utilise the resources that the Navy have. Guatemala does not have the economical resources that the USA has to create both a Navy and a separate Coast Guard/maritime safety

administration, therefore it is more convenient economically and strategically to implement this agency like the Chilean Model.

3.2.4 Ambits of action

The USCG is responsible for enforcing or assisting in enforcing national laws on or under the high seas and waters subject to the jurisdiction of the U.S.A. These duties and obligations are divided into the 13 ambits of action named below in the specific way the USCG does them so afterwards they can be utilised to implement them in Guatemala. However, before going into the USCG ambits of action, lets compare them to DIRECTEMAR's ambits of action. In reality the ambits of action of both countries deal with the same matters, with the difference of focusing more on one than the other, depending on the situation of the country. Anyhow, these ambits of action are the summary of the mission they are trying accomplish. On the other hand, Guatemala's Navy, at present, is doing some of these ambits of action, however, due to the lack of legal regime that it has and of political back up the Navy is struggling to accomplish their ambits in a more proper way. Therefore it is necessary to establish the legal regime and the political willingness to develop the GMSA so it can properly achieve these ambits of action. The USCG ambits of action are the following:

- ☐ National Security
- ☐ Maritime and general crimes and civil offences
- ☐ Customs and smuggling
- ☐ Narcotics trafficking and possession
- ☐ Immigration
- ☐ The preservation of marine living resources
- ☐ Search and Rescue
- ☐ Navigation
- ☐ Recreational boating
- ☐ Port security and safety
- ☐ Merchant vessel inspection and documentation
- ☐ Merchant vessel personnel
- ☐ Pollution
- ☐ Preservation and exploration of the marine environment

Even though the USCG's ambits of action are very much similar to the DIRECTEMAR of Chile, they were not described in detail. Nevertheless, one can look then up in the web page of the USCG (<http://www.uscg.mil.html>).

3.3 The European Model, The Sweden Maritime Administration (SMA)

3.3.1 General aspects:

Sweden is located in the Baltic Sea. The coast of Sweden has a length of 2,700 kilometres of open waters, bays, inlets, archipelagos, islands, rocky islets and rocks which in a way makes Sweden comparable to an island. It's maritime geographical condition is extremely important in the Scandinavian region (see Figure 21), Sweden depends for its development and existence, on the use of the maritime fairways, since is dependent on shipping when it comes to foreign trade (95% in tons and 86% in value and 40% domestic transport (SMA, 1999)) also for the exploitation and exploration of the resources within its maritime jurisdiction (see Figure 22).



Fig. 21 Sweden Geographical. Location

Source: The World Fact Book (2000)

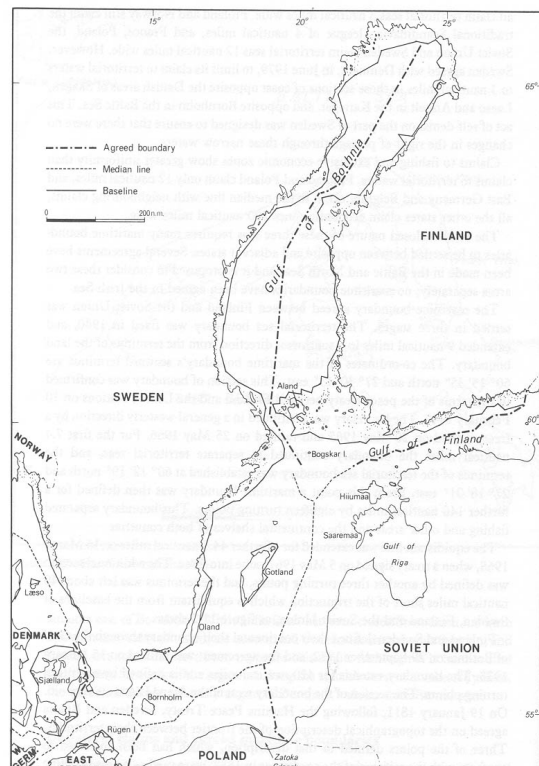


Fig. 22 Sweden Maritime Jurisdiction

Source: Brown E. (1986)

The Swedish maritime administration (economical policy) is under the responsibility of the Ministry of Communication. Sweden does not have any state owned ports, all of the ports are municipal ports; which are the share holders of the de-centralised private companies. The port policy is managed by the Swedish Port Association of which the municipalities are the members. The maritime safety administration activities rest upon the Swedish Maritime Administration, which cover, geographically, the whole country with emphasis on the coasts. Along these coasts, a well functioning organisation has therefore always appeared necessary. It should be observed in this context that the supervision, with reference to safety on board ships, also involves ships in cross-trading, that is to say, Swedish ships mainly trade in foreign ports and, hence, seldom or never called at Swedish ports. The latter condition also brings about a need for an inspection activity based abroad. The main difference between the SMA and the DIRECTEMAR is that Sweden has developed their national merchant marine fleet more otherwise they work very much alike in the way they help their economies develop.

The SMA was founded in 1956, when all the governmental duties concerning shipping, which had previously been spread among a number of authorities, were formed together under one authority. The SMA is a central governmental authority. Due to great changes in the development of the maritime industry in the mid-fifties and early sixties, and, moreover, a changed transport policy in Sweden, a review of the organisation commenced in the late sixties. As a result of this, a review and re-organisation took place in 1969. Throughout the years there have been adjustments to the regulatory system and modification from the more than a decade of maritime investigations. As a result the SMA has adopted a more up-to-date organisation which entered into force during 1988 (see Figure 23). The present SMA has its legal support through laws, acts, degrees and international conventions, (see Appendix H). The SMA has implemented a compact organisation in relation to DIRECTEMAR and the USCG, nevertheless this organisation functions quite well. On the other hand, Guatemala can take this example of SMA's compact organisation and, model it to their needs. If Guatemala were to implement this new agency, it would be good to start with a compact model to begin with, and change it as it sees proper, in step with its future challenges.

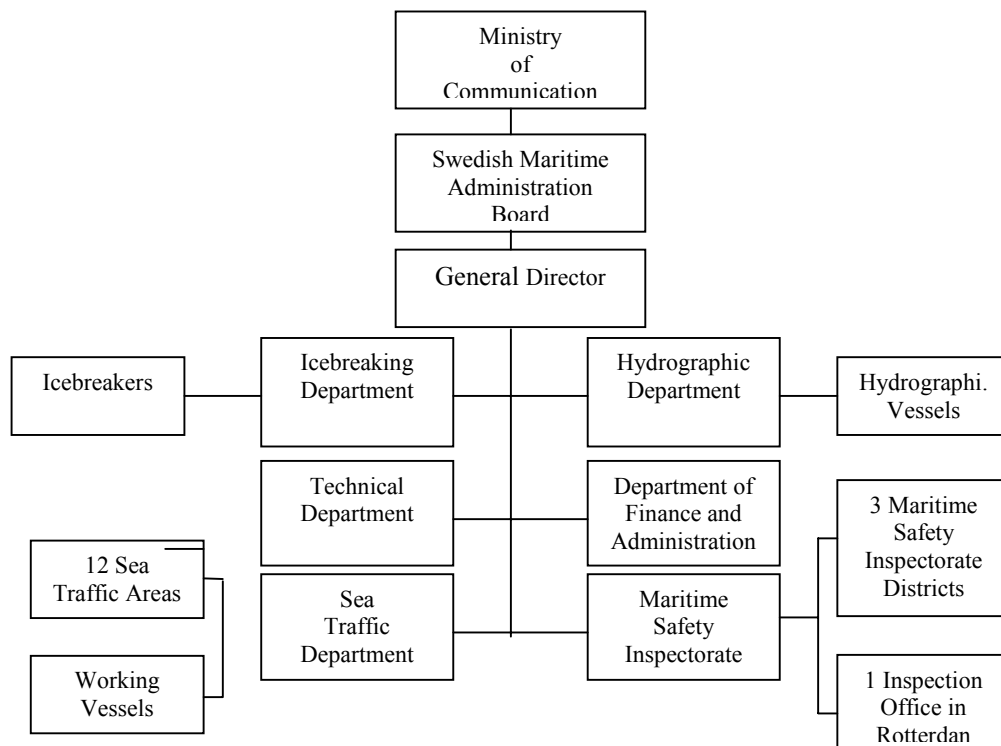


Figure 23 The SMA Organisation

Source: Jönsson J. A. (1999)

Through de-centralised execution, the SMA has divided its maritime jurisdictions into Maritime Traffic Area Offices, Pilot Stations, Fairway Groups, Sea Rescue Stations, Pilot services, Fairway-Rescue Vessels, Manned Lighthouses, Inspectorate Area Offices, Workshops and one central directorate called the “Swedish Maritime Administration” (see Figure 24). The Directorate is responsible for the administration and control of the maritime activities of the country. The SMA, in conclusion, is divided in a similar way to DIRECTAMAR and the USCG, but is only a matter of having a different name for the division of the maritime jurisdiction and of how many departments are necessary to cover each country's specific maritime jurisdiction. Nevertheless, it is important to do this division in order to have a good control and supervision over the maritime jurisdiction. On the other hand, even though Guatemala at present has implemented this division in two regions all it needs is to implement the head of the agency in order to co-ordinate these matters.



Figure 24 Regional Organisation of the SMA

Source: Sweden Maritime Administration (1999)

It is important to mention at this point that the Swedish Coast Guard (SCG) has the mission of combating and investigating any type of pollution. The SCG works under the Ministry of Defence. The SCG assists the Swedish Customs agency, the Fishing

authority and the Police and Immigration Agencies to control, at sea and in coastal areas matters of contraband and smuggling, illegal fishing, anti-drug operations, illegal immigration, and so on. The SCG also assists the SMA in matters related to its missions which are described below. Comparing this situation to Chile and to the USA, DIRECTEMAR and the USCG do both functions under one agency, the Coast Guard function in the U.S.A. and the maritime safety administration function in Chile, in my opinion, the combination of these two functions work much better because you have, together, the legal administration regime and the operational regime. -This facilitates matters because they can co-ordinate, supervise and implement maritime issues. Institutionally and economically, the structure of having both functions together is better. On the other hand, Guatemala does not have a Coast Guard, instead it has a Navy, which in reality is small, around 1,500 personnel. This size is sufficient for Guatemala, implementing a different agency or agencies (coast guard/maritime safety administration), would be too costly and the country does not have the necessary or adequate human resources to implement this kind of structure.

3.3.2 Mission:

By law the Swedish Maritime Authority is responsible for "The task of making traffic on Swedish waterways as safe as possible, safe for seafarers, ships and the environment" (SMA 1999). The SMA's mission is very much similar to the DIRECTEMAR and the USCG, in that all of them protect human life, damage to property and the protection of the marine environment in their maritime jurisdiction.

3.3.3 Dependency:

The Swedish Maritime Administration's authority falls under the Ministry of Communication and has the same independent position as other central authorities. A Swedish characteristic distinction of Government administration is the non-existence of a so-called "ministerial rule". In matters of administrative character, the SMA complies with the dispositions, directives and instructions of the Board; given to the Director General, who passes them down to the different departments and the Maritime Safety Inspectorate. The SMA dependency is different from DIRECTEMAR, which falls under the Ministry of Defence. The USCG is similar but

not equal to the SMA in that the USCG does fall under the Ministry of Transport, but works in a full military way. Here we can see that the three successful organisations are organised in three different ways, nevertheless they are either under the Ministry of Defence or it relies greatly on it to accomplish its missions

3.3.4 Ambits of action

For the accomplishment of its mission, the SMA performs 6 ambits of action. The SMA has its ambits of actions divided in the same way as its Departments. This is why the author has written the same names of the departments as the ambits of actions. However, even though the ambits of actions of the SMA are less than those of DIRECTEMAR and the USCG they cover very much the same aspects and obligations in order to accomplish their mission. Guatemala can take the example of the ambits of action from all of the three and apply them according to the situation of the country. (For a more detailed description of those ambits of action look at the web page of the SMA (<http://www.sjofartsverket.se>))

- ❑ Maritime Traffic Department (MTD)
- ❑ Icebreaking Department (IBD)
- ❑ Hydrographic Department (HD)
- ❑ Maritime Safety Inspectorate (MSI)
- ❑ Technical Department (TD)
- ❑ Department of Finance and Administration (DFA)

3.4 Analysis:

First, when comparing the missions of the DIRECTEMAR, USCG and the SMA, it can be seen that they have very similar missions. Their primary missions are oriented to the safety and security of human life at sea, the protection from damage to private property, the prevention of pollution of the marine environment and the development of the economy. Each administration focus its missions on other related matters like policing the maritime jurisdiction, piracy, smuggling, customs, emigration and others. All of these matters are cover within their ambits of action. On the other hand, even though Guatemala's Navy is not functioning in an optimal way, it also has the same primary missions and with in its ambits of action has the rest of these same missions.

After comparing the primary missions of the administrations of DIRECTEMAR, USCG, SMA and the Guatemalan Navy. Now let's look how these missions are expanded through the ambits of action (name different in each country) that each country in their respective administration has, in order to cover all of the maritime activities in their aquatic jurisdiction, in Table 1 a comparison will be done, taking the principal ambits of action that most of them have. As mentioned before the administrations focus their mission in different ways, this depends on the priorities that the country has depending on the situation in order to accomplish their mission.

Table 1 DIRECTEMAR, USCG, SMA and Guatemalan Navy Ambits of Action.

Ambit of action	Chile DIRECTEMAR	U.S.A. USCG	Sweden SMA	Guatemala Navy
Protection and safety of human life at sea	X	X	X	X
Preservation and protection of the maritime environment	X	X	X	X
Maritime control, security and discipline	X	X	No	X
National merchant marine, including fishing, tourist and recreation activities	X	X	X	X
Search and Rescue co-ordination and operation	X	X	Only Co-ordination	X
Navigation (aids to navigation, Hydrographic, oceanographic, others)	X	X	X	Aid to Navigation only regulation
Maritime representation of the state	X	X	X	By law yes, in reality no
Maritime interests	X	X	X	X
Customs fiscal and smuggling prevention	X	X	No	X
Immigration	X	X	No	X
Narcotics trafficking operations	X	X	No	X
National security	X	X	No	X
Contamination and Pollution Combating	X	X	No	X

With these ambits of action even though they are named differently in each example country, they are in principal the same because they accomplish the same mission in each country. Before it was indicated that the mission of each country has the same strategy and objective in principal. These ambits of action really represent safety and security for maritime transport, safety for human life at sea, prevention and control of pollution to the marine environment, flag/port state control, maritime administration and also makes sure that the national and international regime is complied with.

Guatemala has these ambits of action too, however they are not being apply fully, mainly because there is a lack of administrative and legal support from the government, nor is there a central co-ordinating body within Guatemala's Navy which is in charge of the maritime matters in Guatemala to over see the administration of activities. This is why a specific agency should be implemented under the Ministry of Defence. Guatemala's maritime matters are not being supervised, regulated and controlled, and this damages and negatively affects the way maritime activities are handle by the country. Therefore the economy of the country is suffering as a result of this negligence by politicians, private industry and ministries and other agencies of the government, not to mention that is big neglected by Guatemalan society as a whole.

Each of the administrations given as examples are organised in different way but all of them are oriented to accomplishing their mission through the ambits of actions mentioned above. However, in order for them to accomplish this they have to have a comprehensive organisation at different levels of structure within the government and the necessary resources to provide services to the public.

Lets look at Table 2, which indicates this level of organisational structure. Although Guatemala does not have the present structure will be presented so it can be compared to the other maritime safety administrations being presented.

Table 2 Structural Organisation of DIRECTEMAR, USCG, SMA and Guatemalan Navy.

STRUCTURE LEVEL		CHILE	U.S.A	SWEDEN	GUATEMLA
STRATEGIC LEVEL		Ministry of Defence	Ministry of Transport	Ministry of Communication	Ministry of Defence
CO-ORDINATION LEVEL		DIRECTEMAR Military	USCG Military	SMA Civilian	Navy- But no Special Agency
OPERATIONAL LEVEL					
	Headquarters	X	X	X	No
	Marine Environ. & Maritime Interest Directorate	X	X	X	No
	Safety & Maritime Operations Directorate	X	X	X	No
	Maritime Telecommunica tion Centre	X	X	X	X
	Search & Rescue Centre	X	X	X	X
	Maritime Training Centre	X	X	Private institutes	X (not working to full capacity)
	Maritime Traffic Control Centre	X	X	X	X
	Maritime Governors Offic.	X (Sixteen)	Districts areas Atlantic & Pacific	Four Maritime Safety Inspectorate.	Regions Atlantic & Pacific
	Port Captains	X	No	No	X
	Sea Mayors	X	No	No	No
	Large and small shore units	X	X	Only Small shore units	X
	Patrol boats units	X	X	Icebreaking hidrographic ships	X
	Air station units	X	X	No	X

When looking at Table 3 it can be seen that the levels of structures for each country are different in many ways but at the same time are alike. For instance, they all have a headquarters, Training Centres, Search and Rescue Centres and Floating and Air Units. Chile and the U.S.A. have Directorates and Sweden has an Inspectorate and Departments. On the other hand, Chile has Maritime Government

Office/Port Captain/Sea Mayors and the U.S.A. has Areas/Districts/Shore Units/Stations. When comparing Sweden it can be seen that they operate with Stations/Fairway Groups and Workshops. Other important differences to mention are the fact that in a military structure personnel are available 24 hours a day 365 days a year and no overtime is paid to them. This is the case in Chile and the U.S.A. However with Sweden, the structure is civilian, which are used to working 8 hours a day, if they work more hours overtime has to be paid to them. The training of military personnel is more expensive and also the salaries are much lower than for civilian personnel.

Maritime activities are extremely important for all maritime countries and it is a matter of strategic importance to have tight control over all ports and fairways 24 hours a day. Even Sweden in a good way relies on their Coast Guard to navigate the vessels of the SMA. The SMA for example relies on its Coast Guard, when it comes to operations like combating spills, search and rescue, customs, immigration, smuggling and policing the maritime jurisdiction the Swedish Coast Guard is always there 24 hours a day.

The comparison of Guatemala was left for the end on purpose because it does not have a special agency in charge of leadership/headquarters/co-ordination. This is the main reason why Guatemalan maritime matters are not been handled in an optimal manner. The author does not want to sound like he is patronising the military, however I'm being realistic about the present economic situation of Guatemala. The country has a weak economy and most of the existing resources are oriented to social welfare like education, health and infrastructure. Therefore it can not afford to implement another big or small organisation with new facilities, equipment, ships, helicopters and planes and employees required with the technical knowledge are just not available. It would take at least 10 years if not more to have the adequate personnel trained. Therefore why not take advantage of the resources that the Navy has available at the present time, which are adequate and ready to be used. The war is over and the Navy has always oriented its mission toward the sea and not to the war itself. It is time that Guatemala wakes up and starts making some real changes of mentality from the political government, private sector and

from the Ministries and Agencies of the government and also from the opposition groups in order for the country to develop its maritime jurisdiction and therefore its economy. It is important to mention also that if Guatemala were to create the GMSA under the Ministry of Defence, it will be under civilian rule, because it is written in the Constitution of the Republic that the General Commander of the Armed Forces is the President of the Republic. He is a civilian therefore, the Ministry of Defence is under civilian authority, who in fact is looking for the rights of all civilian on the whole Guatemala society.

In summary, each example country has implemented its organisation in a special way but alike to each other in order to execute their ambits of action and therefore accomplish their mission. In synthesis what each country is trying to do is to provide a safe and secure maritime condition in order to protect human life at sea, prevent damage to private property and to protect the marine environment from any pollution/contamination. What the country gets as a result is providing the environment for investment and development of the marine economy and as a result, the whole economy of the country. In short, the conclusion is that the lack of a Guatemalan Maritime Safety Administration is not giving a heading to the maritime activities in Guatemala. Is not needless to repeat again that the maritime economy is suffering and not developing fast enough to keep up with the pace of globalisation that is occurring all over the world and specially in the maritime world. As a final result the country's whole economy is been slow in its development. Guatemala must implement a Maritime Safety Administration to be in charge of all maritime safety matters in order to provide a safe and secure maritime environment. This will help its economy to develop and be progressive for future generations.

In the next Chapter a proposal for the Guatemalan Maritime Safety Administration will be presented, taking into consideration the geographical, economical and geopolitical situation of the country as was described in Chapter Two. However, the matters covered in Chapter Three of the examples of different maritime safety administrations will be taken in consideration also in order to implement an agency, that to begin with would be small but adequate to support the country's realities and necessities.

CHAPTER FOUR

GUATEMALA'S MODEL OF A MARITIME SAFETY ADMINISTRATION

As was discussed in the previous chapters Guatemala is a maritime country by nature since it has access to the Atlantic Sea and Pacific Sea. Guatemala's economy depends on the import and export of natural resources and industrial/technical commercial goods, which are done mainly through the maritime ports. Guatemalan ports presently lack safety, security, and protection of the marine environment, which in a way slows the economy. The reason is that the ports do not have the necessary national regime to support it. In the international arena Guatemala has not applied the existing ratified international conventions from IMO/ILO. In addition Guatemala needs to ratify other important international conventions to support its legal regime. The economy can be also affected if the sea boundaries of the country are reduced, since it has failed to sign maritime treaties with its neighbours to determine its maritime jurisdiction. Other maritime activities like fishing, aquatic sports and tourism add assets to the economy, but since there is no maritime safety authority due to the lack of interest and knowledge by the politician, private sector and governmental agencies. All of the above matters are being neglected giving, as a result, a weaker economy.

Therefore, the government has to pass new maritime national laws and ratified new international conventions (IMO, ILO) and also should apply the existing national laws and international convention already ratified. This Chapter proposes the implementation of a new Guatemalan Maritime Safety Administration (GMSA) under the Ministry of Defence. In addition the organisation and missions of the different departments will be presented.

4.1 Guatemalan Maritime Safety Administration

In order to establish the Guatemalan Maritime Safety Administration, first of all the government must consider the legal regime, which will give the power to this agency to enforce the safety, security and protection of the marine environment. In the same way it is important to ratify and implement the International Conventions of (IMO and ILO). To achieve this, is necessary to have the support of all politicians at the highest level (executive, judicial and legislative branches of government) to reinforce and strengthen this maritime safety administration. This legal regime will establish the rights, duties and the institutional organisation of the agency.

4.2 Structural Organisation of the GMSA

The organisation proposed is based on the current social, economic, geographic, and geopolitical circumstances of the country in combination with the study of the three successful maritime administrations described in previous chapters. The institutional organisation of the GMSA shall be within the National Naval Force, so it can take advantage of the human resources and equipment that the Naval Bases and Naval Academy have. The Navy has Commissioned Naval Officers that have graduated as Naval Engineers, Architects, Electronics, Navigation, Lawyers, and experts in maritime affairs, like the ones graduated from the World Maritime University in Sweden. The Navy also has ships, naval bases, maritime facilities, vehicles, special maritime equipment and so on. Stabilising the GMSA within the Navy will save the government time and millions of dollars in the training of new people and on buying new equipment. The Guatemalan Navy works under the Ministry of Defence, which by Constitutional Law is directed by the President of the Republic, who is a civilian (see Figure 25).

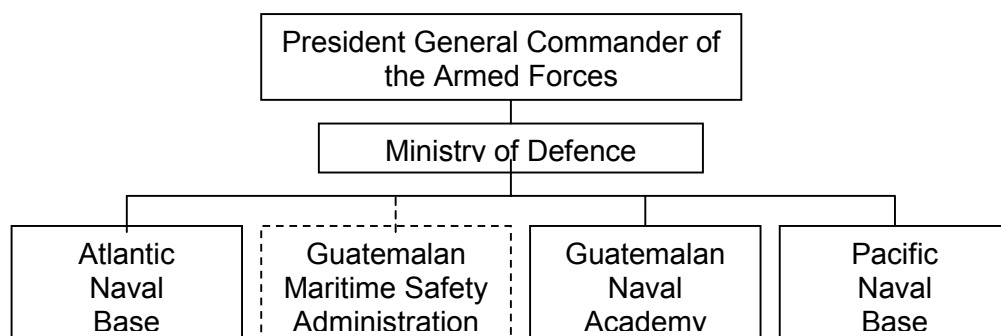


Figure 25 Guatemalan Maritime Safety Administration

This agency's mission will be to: "provide a safety, security and protection of the human life at sea, damage to property and prevention of pollution to the marine environment and for ended the developing of Guatemala's economy". The author proposes that in order to function, the organisation in Figure 26 should be considered.

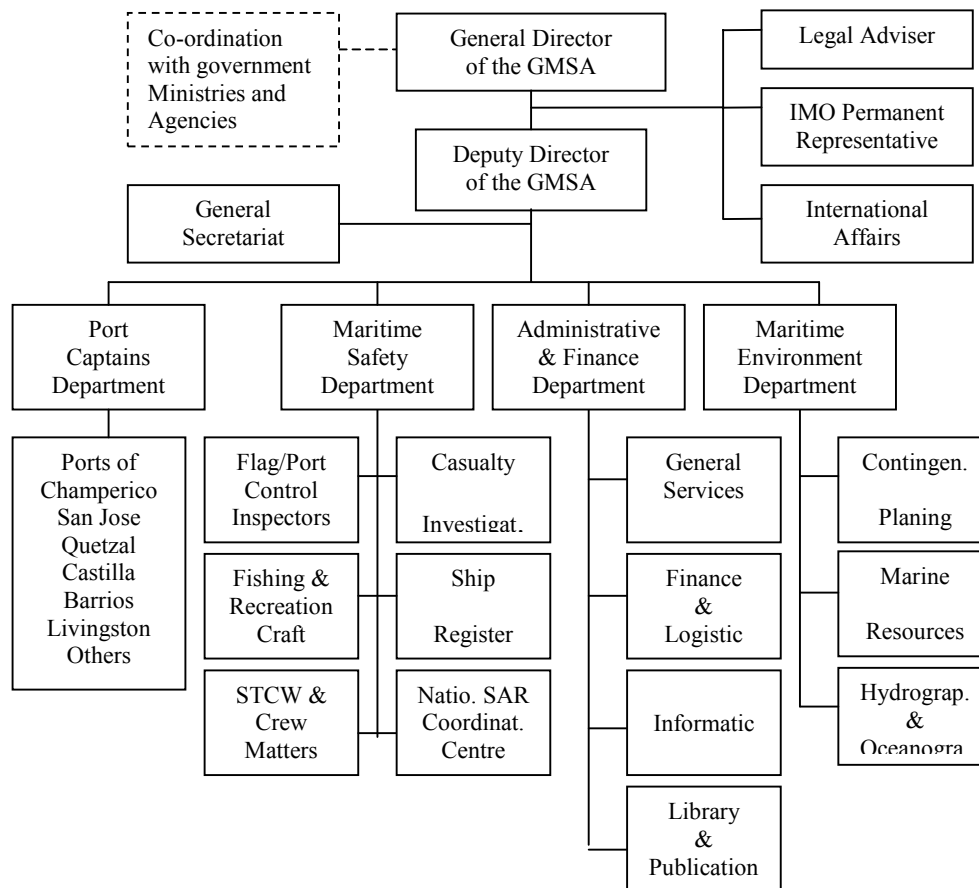


Figure 26 Organisation of the Guatemalan Maritime Safety

4.3 Duties and Obligations of the GMSA

According to Articles 142, 244 of the Constitution and Decree 20-76 of the Congress of the Republic, the Armed Forces are responsible for guarding, controlling and maintaining the land, air and maritime jurisdiction of Guatemala. In order to comply with this Constitutional mandate, the GMSA shall have specific duties and obligations for the safety, security and protection of human life, damage to property and the marine environment. The author recommends the principal ambits of action of the GMSA to take the following form, taking into consideration the recommendations of Vanchiswar (1997).

- ❑ General superintendence and co-ordination
- ❑ Registration of ships and related functions
- ❑ Surveys, inspection and certification of ships, along with related matters
- ❑ Ensuring safety of fishing vessels and other small craft
- ❑ Examination and certification of seafarers
- ❑ Manning of ships
- ❑ Crew matters in general
- ❑ Conducting Inquiries/Investigations into shipping casualties
- ❑ Deal with wrecks in national jurisdiction
- ❑ Dealing with matters pertaining to prevention/control/combat of Marine pollution
- ❑ Dealing with matters pertaining to maritime search and rescue
- ❑ Advising the governmental on all maritime technical matters at the national and international level
- ❑ And others as a result of national laws and/or maritime international conventions ratified and/or of present existing legal regime.

4.4 Functional description of the GMSA

The proposed main missions of GMSA are the administration, regulation, control, supervision and co-ordination of all the maritime activities related to the merchant marine, maritime transport, maritime safety, security, protection of human life, damage to property and the marine environment. Its headquarters will be located in the national capital for better co-ordination of administrative matters. For operational matters, services will be provided through Port Captains Offices in the commercial ports.

Taking into consideration the organisation shown in Figure 26 and the duties and obligations explained above, a description of the different departments and sections of the GMSA would be described below.

4.4.1 General Director of the GMSA

The general superintendence and co-ordination of the work of the maritime safety administration is under the responsibility of the General Director of the GMSA as a whole. Due to the primary duties of this agency, the General Director has the status

of a statutory official duly appointed by the Ministry of Defence and appropriately empowered under the national regime. He must have the rank of Captain in the Navy and be among the best of his rank in maritime matters.

4.4.2 Deputy Director of the GMSA

The Deputy Director of the GMSA shall advise and assist the General Director in his missions. He has under his control and supervision all the departments in the GMSA. He should also make sure that all of the personnel in the GMSA are in constant training, in order to keep up with the changes in national legislation, international conventions, new doctrines and developing technology. The Deputy Director should be a naval officer with the rank of Commander or higher and will be appointed by the Ministry of Defence, familiarised with national legislation and international conventions related to maritime matters.

4.4.3 Legal Adviser

The Legal Adviser assists and advises the General Director in all maritime legal matters. Maritime activities involve a lot of legal matters like buying/selling, mortgaging and chartering vessels, handling labour disputes, reviewing claims to casualties of human life, damage to property and pollution of the environment. The Legal Adviser also advises the Director on the signing of treaties, conventions with other countries and international organisations. These legal matters have to be handled in a professional way in order to protect the rights of the citizens and property of Guatemala as well as the government at a national and international level.

4.4.4 International Maritime Organisation (IMO) Permanent Representative

IMO is the leading maritime organisation in the international community, where all the state members promote and pass new international conventions, resolutions and circulars for maritime activities and industry. Guatemala is a member state of this organisation, therefore it is of vital importance that the GMSA appoint a permanent representative to give continuation to the work being done by the committees and sub-committees in IMO. Up to now Guatemala has not participated at all in the IMO and this puts the country at a disadvantage in maritime matters in comparison with

the other member states that do participate. Is important that a permanent representative be appointed so it can promote and protect the Guatemalan maritime interest. He will report directly to and follow the instructions given by the General Director. The requirement to be a representative is to be a naval officer and will be appointed by the Director General. He must be familiar with national legislation and international conventions related to maritime matters

4.4.5 International Affairs

Maritime activities are of an international scope and today countries all over the world are managing their maritime matters at a more international level. In almost all of the regions of the world, countries have created united Memorandum of Understanding regarding Port State Control. The International Labour Organisation (ILO) is a world-wide organisation that deals with crew matters on board vessel, like wages, food and accommodations, the treatment of the crew. In the United Nations, member states have passed the Law of the Sea, which is the main framework for any maritime international law and therefore maritime national law. UNCLOS is being revised and is in constant change in the United Nations. These are some of the important matters that a maritime country has to deal with in the international arena. The implementation of international affairs within the GMSA is a necessity in order to protect and promote the maritime interest of Guatemala. The International Affairs Section assists with or represents the General Director in international meetings, related to maritime matters, to safeguard and encourage the maritime interest and activities of Guatemala in the international field.

4.4.6 General Secretariat

Governmental agencies are known for creating a lot of red tape, mishaps and in some cases are involved in acts of corruption by its members. A governmental agency needs to have a secretariat to keep control and record of all documents coming in and out of the agency, as well as to hasten the flow of official documents in order to provide an adequate service to the public in general. Therefore the General Secretariat will be in charge of the official documents that are handled by the GMSA. This will avoid any red tape, mishaps and corruption.

4.4.7 Harbour Master Department

85% of imports and exports move through the commercial ports of Guatemala. This demands a great deal of shipping activities be done in the port areas. These activities involve vessels arriving at national ports to load and unload; however, the insufficient control and implementation of a national legal regime has resulted in many accidents caused by vessels. In the port area the handling of dangerous goods merchandise is not controlled and regulated at all and therefore it has provoked lots of accidents. The accidents in the port areas have resulted in the lost of human life, damage to property and the pollution of the maritime environment. It is indispensable for the GMSA to have a Port Captain Office in each major and minor port of the Republic that the GMSA considers necessary to control the maritime activities and prevent accidents. The Port Captain must be a naval officer and it will be appointed by the General Director. The port Captain shall undertake the following duties within their respective jurisdiction:

- ❑ Grant or denied the entrance or exit of vessels in the territorial sea of Guatemala
- ❑ Assign, for safety and security reasons, the anchorage and manoeuvring zones in the maritime jurisdiction of Guatemala. In co-ordination with the port authority
- ❑ Regulate the used of navigation aids also the entrance and exist of the channels and of any navigable water way
- ❑ Supervise and control the pilot and tug boat services provided by the port authorities
- ❑ Supervised and control the inspection of dangerous goods merchandise on board the vessels, and will co-operate with the costumes, quarantine, and port authority with the handling and managing of this mechanise from the point of view of maritime safety and security
- ❑ Supervise and control
- ❑ In general, comply with all those functions related to maritime safety, the salvage of ships, dredging and others for the protection of the marine environment of Guatemala
- ❑ The customs, quarantine, immigration, port authorities, police are obligated to assist the GMSA and vice versa, with-in their respective competence, the help that requires in order to achieve its missions

4.4.8 Maritime Safety Department

In order for Guatemala to have appropriate maritime shipping commerce, the country must provide the proper safe and secure environment. As a flag state countries have the responsibility to have an adequate procedure to register national flag vessels. Even landlocked countries in the world have national fleets and allow registration of foreign owned vessels. It is a pity that at the present time Guatemala does not have a national or foreign owned fleet at all. Also as, Port State Control, all countries have duties and obligations under national and international laws, which involve having to accept the entrance to national ports, vessels that are seaworthy and to deny entrance or detain substandard vessels. Port State Control is of great importance for a country to protect its ports and the maritime environment from accidents and pollution from vessels. The import and export of dangerous goods merchandise shall be therefore regulated in a proper, safe and secure way to avoid unnecessary accidents. In Guatemala, many accidents have happened in the past and have taken human lives, damaged property and polluted the environment. Other activities that have caused the same calamities are the fishing and recreational craft activities in Guatemala. Because of the lack of supervision, control and proper regulation. All vessels regardless of tonnage/sizes or type have to be manned in a professional way, because more then 80% of the accidents that occur in the port area and at sea are caused by human error. This is as a result of poor or no training of the seafarers in the country they are from. Therefore, it is important for Guatemala to take these training, certification and crew matters into account in order for the country to have professional seafarers and at the same time create new jobs for its citizens. Many accidents have occurred in the port areas as well as at sea and in maritime countries these accidents are being investigated to find out what really happened in order to implement new regulations if necessary, in order for this kind of accident not to happen again. Guatemala is not safe from this phenomenon. Therefore the country should have a unit in charge of inquiries/investigation in maritime accidents. Because history has shown that "he who learn from its mistakes is a wiser person".

Taking into consideration what was mentioned above, the accomplishment of this department is one of the most important and the main reasons why the GMSA

should be established. Its principal missions are: the safety and security of human life at sea, prevention of damage to property and protection of the marine environment. This shall be accomplished by the following sections

4.4.8.1 Flag/Port State Control Section

Flag State control, are the measures that a country takes to ensure that national flag vessels are constructed in a safe and secure way, by having the proper communication/navigation/propulsion equipment and are professional manning. This is done by performing various types of periodical surveys/inspections to the vessels in compliance with the relevant rules and regulations made by national and international standards (IMO, ILO conventions). In regards to manning of vessels and other crew matters, the flag state must verify that the ship is handled by a master, officers and crew that have the right qualifications in relation to navigation, communication, marine engineering and seamanship and also comply with national and international regime. All of these measures mention above provide, as an end result, the safety of human life at sea, the prevention of collisions and the prevention, control and reduction of pollution to the marine environment. Guatemala as a flag State should verify that the national legal regime and the international conventions ratify by the country should be complied with by the shipowners. In order to do this it has to ensure strict and efficient enforcement of standards and regulations:

- ❑ Guatemala shall remain responsible for the completeness and efficiency of the survey/inspections
- ❑ Co-ordinating the work and provide the aforesaid national rules and regulations to those Classification Societies to whom statutory functions have been delegated as regards surveys of national ships
- ❑ Performing the inspection for the passenger/cargo ship safety certificate, along with the record of equipment
- ❑ Performing the examination and certification of seafarers, as well as the manning of ships
- ❑ Intermediate surveys/inspections of ships so as to verify that the ships and their equipment continue to be so maintained as to warrant the continued holding of the appropriate certificate/s

- ❑ Approving various plans of new ships under construction
- ❑ Encouraging the development and manufacture of marine equipment indigenously, and approval of such equipment
- ❑ Maintaining the technical records of national ships
- ❑ Dealing with requests for exemptions from statutory requirements

Once the GMSA is aware of the duties and obligations of a flag State the author recommends that the GMSA make an agreement delegating the responsibility of statutory certificates to recognised classification Societies. It should be kept in mind, however that the GMSA is the only one responsible for the certificates issued to the vessel.

Port State control is presently being undertaken all over the world because maritime trade is an international affair. Today, countries all over the world have national or foreign owned vessels but some countries are more responsible than others in complying with the international safety standards set by the IMO and ILO. In some regions countries have even implemented regional Memorandum of Understanding (MOU) for Port State Control such as the Paris MOU in Europe, the Caribbean MOU in the Caribbean Islands and the Japan MOU in Asia. Unfortunately, due to economical reasons shipowners look for those countries (e.g. Honduras, Belize, Cyprus, Panama) that do not comply as much with international standards. These countries are known in the industry as "flags of convenience" and it is where sub-standard ships are registered. Sub-standard ships are un-safe and can provoke accidents resulting in the loss of human life, damage to property and pollution to the environment. Guatemala, like other responsible countries, has to implement port state control so it can detain and stop sub-standard ships from visiting its ports. The Port State Control involves following the national and international (IMO/ILO) regime, and therefore verifying of the following certificates on each arriving ship:

- ❑ Passenger/Cargo Ship Safety Certificate, along with the Record of Equipment
- ❑ Cargo Ship Safety Equipment Certificate, along with the Record of Equipment
- ❑ Cargo Ship Safety Radio Certificate, along with the Record of Equipment.
- ❑ Load Line Certificate
- ❑ Tonnage Certificate

- ❑ International Oil Pollution Prevention Certificate
- ❑ International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in bulk.
- ❑ Certificate of Competence (STCW/78/95) for officers and crew members of national and foreign vessels
- ❑ ISM Code Certificate
- ❑ Cargo Ship Safety Certificate (for non-convention ships under 500 GRT)
- ❑ Exemption Certificates, where necessary and other applicable national regime and international conventions ratified by Guatemala, presently and in the future.

4.4.8.2 Casualty Investigation Section

The main reasons of an inquiry/investigation into a shipping casualty are to:

- ❑ inquiry/investigation of Salvage, Wrecks and any marine accident on board vessels and in the port facilities
- ❑ ascertain the facts
- ❑ obtain all relevant information, and
- ❑ determine as precisely as possible the cause/causes of the casualty

This enables the GMSA to take the necessary steps to prevent, as far as practicable, the occurrence of similar casualties in the future in order to prevent calamities mention before. In this connection it is important to adopt a system of inquiry/investigation in two stages, a Preliminary Inquiry and a Formal Investigation.

Preliminary Inquiry

This inquiry should be handled by the GMSA in a quasi-judicial in manner. It must be conducted by a responsible naval officer (with the necessary expertise) of the GMSA, duly notified as the proper officer for the purpose.

Formal Inquiry

A formal investigation is a public (judicial) inquiry, to be held in addition to or instead of a preliminary inquiry, as may be decided by the Guatemalan government. It is held by the duly appointed court assisted by assessors of the appropriate expertise

and drawn by the Court from a panel maintained for the purpose either by the GMSA or by an appropriate Court.

4.4.8.3 Fishing and Recreational Craft Section

Guatemala has more than 100 fishing vessels and a great number of artisanal boats and recreational crafts. These type of ships are the ones that have caused the most accidents, resulting in the same calamities as merchant marine vessels. This Section is needed, to be responsible for the various types of periodical surveys/inspections to be done to these type of ships, in compliance with the relevant rules and regulations conforming to the national regime and international conventions that Guatemala will ratify. Doing the various surveys, inspections and certificates of Fishing and Recreational Crafts will stop these types of accidents from happening. Regulating these ships is very difficult even in developed maritime countries, but this is worse for Guatemala because these activities have enjoyed existing without being supervised and controlled. Through this section of the GMSA ships shall, at least, comply with the following items:

- ❑ Fishing and Recreational Craft Safety, Communication and Construction Certificates, along with the Record of Equipment
- ❑ Inspections and detention of un-seaworthy/unsafe fishing and recreational craft
- ❑ Approval of various plans of new fishing and recreational craft under construction
- ❑ Maintenance of technical records of fishing and recreational draft
- ❑ Control, supervision and authorisation of fishing equipment.
- ❑ Prevention and detection oil pollution/hazardous materials to the marine environment from fishing and recreational craft
- ❑ Fishing and Recreational Craft Certificate of Competence Manning

4.4.8.4 Ship Register Section

An adequate and efficient ship registration promotes shipowners to register their ships in a particular country and therefore the creation of the national/foreign-owned shipping fleet, this increases the quantity of ships registered and the related fees realised, as well as the possibilities for more employment opportunities for local seafarers. When a country allows the registration of a ship, this serves as evidence

of the right to fly the national flag as well as the right of ownership and of mortgages. Thus, Flag State registration is very important since it accords the nationality of that country to the vessel and serves as proof of title for the vessel. Therefore, Guatemala shall implement a national/foreign-own fleet in order to increase its tonnage, have safer vessels and thus create new employment for the country. As was stated before, Guatemala shall delegate the responsibility of statutory surveying/inspection for Flag State Certificates to recognised Classification Societies. Guatemala shall follow the IMO guidelines for the registration of Ships, and for implementing the national laws based on the international regime (IMO/ILO).

This Section shall take such measures for ships flying the Guatemalan flag as are necessary to ensure safety at sea with regards to the construction, equipment and seaworthiness of ships. In addition they will regulate the manning of ships, labour conditions and the training of crews, taking into account the applicable national and international conventions ratified by Guatemala. Other measures are the use of signals, the maintenance of communications on board vessels and the prevention of collisions by these vessels. This Section shall implement the essential primary provisions relating to:

- ☐ Qualifications for ownership
- ☐ Obligation to register
- ☐ Procedure for registration
- ☐ Certificate of registry
- ☐ Mortgages
- ☐ Name of ship
- ☐ Registration of alteration and registration of a new ship
- ☐ National character and flag, and
- ☐ Attendant miscellaneous matters

4.4.8.5 STCW and Crew Matters Section

The human element is the most important in the maritime industry because all vessels are manned by humans. It's also true that the human factor is responsible for more than 80% of the accidents of the maritime activities (Liljedahl, 1999). Officers and crews have to provide proof of competence for the level at which they

have to perform their duties on board ships. However, not all countries have the same standards of training/qualification and in some countries seafarers can buy a certificate of competence. This is one of the factors that led to revision of the 1978 International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW/78). The problems of STCW/78 IMO were amended, by creating a new convention, the STCW/95. This convention will enter into force on the first of January, 2002, and the officers and crews of the countries that do not ratify and comply with this convention would not be allowed to work on board any ship. Guatemala needs to address this problem as soon as possible since it greatly influence the national maritime labour on board vessels, this people are going to be out of job. Guatemala's Naval Academy, which by decree has the responsibility to train all merchant marine, fishing and recreational craft personnel, but due to insufficient funds only fishing and recreational craft education is being taught.

The most abundant resources available in most countries, especially developing countries, are human resources. Today, economists have come to believe that national economic development is closely linked to human resource development. Some countries' economies depend greatly on maritime labour, like the Philippines for which seafarers' remittances represent a significant share of foreign exchange revenues. The social, political and economic mentality of a government on labour matters in general is also bound to affect maritime labour (seafarers). Maritime countries have responsibility to harness such human resources and to provide schools for the proper training, certificate of competence, wages, living conditions, food and social benefits. Guatemala has to assess the manpower it needs in its maritime sector, and plan for and ensure the availability of such manpower both in quality and quantity and optimise the utilisation of such manpower to national advantage. The country needs to provide the necessary resources for the Guatemalan Naval Academy and implement this section under the GMSA. If Guatemala wants to be part of STCW/95 it must provide the professional education required by this convention and at the same time create new employment and thus develop its economy. Therefore, Guatemala has to implement the relevant regulations in the following aspects:

- Ensuring safe manning, taking into account human factor

- ❑ Ensuring proper and adequate education and training of seafarer
- ❑ Examination of Seafarers
- ❑ Certification of seafarers

The maritime industry have ships with flags from all over the world used on board ships seafarers from different nationalities, not all flag States protect wages and living conditions. On board some ships, wages are not always paid, the living conditions are terrible and seafarers are mistreated. Some countries even authorise national flag shipowners to discriminate against seafarers from other nationalities, like Norway and others where a national seafarer who does the same job as a foreign seafarer gets paid 300% or more than the non-national seafarer. With its national seafarers Guatemala has the responsibility to ensure due attention to the human factor encompassing conditions of work, the living and working environment, seafarer's welfare and the discipline of seafarers on national ships and foreign ships.

4.4.8.6 National Search and Rescue Co-ordination

Seafarers are not afraid of the sea, but they respect its power and strength very much. Ships can be stranded for various reasons, like mechanical problems, fires, collisions, grounding, capsizing, sabotage or atmospheric conditions like storms, typhoons and oceanic tremors. Today, countries at a national and international level have implemented legal regimes for the provision of search in rescue (SAR) for national and foreign ships/seafarers at sea. At the national level countries have a national SAR co-ordination centre that generally does the SAR operations or is limited to the co-ordination of the national SAR operations. In the international arena, IMO members have implemented the Search and Rescue Convention, which has divided the world into regions and within these regions has divided areas by countries. Guatemala as a maritime country it has more than 100,000 thousand square miles of maritime jurisdiction, and all kinds of national flag ships go out to sea every day and many foreign ships visit the national ports. The Guatemalan Navy, through all naval bases, is presently in charge of all SAR operations in its maritime jurisdiction and has done an excellent job. This, in this author's view, should stay that way. Since Guatemala is an IMO member, the state shall ratify the

International SAR Convention and acquire the special equipment required by IMO to receive message from vessels in distress. A national SAR co-ordination centre should be implemented to co-ordinate operations at a national and international with the Guatemalan Navy.

4.4.9 Administrative & Finance Department

All organisations should have an administrative and finance department to handle matters related to the internal workings of the organisation. Maritime organisations also provide services to the public that have to be charged for and these fees have to be administrated in a proper way. Today, administrative procedures are manage in electronic files, informatic in the maritime field has advanced so much, and is even in constant change every day. The use of computer software and hardware makes the work efficient, weaker and better, this obligates maritime organisations to specifically designate this task to a working group. Since maritime activities are international, international agencies like IMO/ILO exist to deal with the regulation of maritime matters. They publish many books and journals. Therefore countries as well as individual experts in the maritime field, rely on these books as reference in a maritime administration. Also national and international maritime publications and regulations have to be available to the general public. Because it is important for Guatemala to have within the GMAS an Administrative and Finance Section to deal with the above matters so it can provide an organised, proper an much better service to the general public.

4.4.9.1 General Services Section

The Guatemalan government will have to provide the GMSA with the proper equipment and personnel for the maintenance of the building, equipment and vehicles in order for the GMSA to perform its principal mission.

4.4.9.2 Finance and Logistic Section

The GMSA shall charge for various services that it will provide, like flag state registration, port state detentions, administrative fines, certificates for seafarers. These fees, as well as the general budget provided by the government for the

functioning of the GMSA, will be managed by this section. To be more specific it will be in charge of the following tasks:

- ❑ Prognoses and analyses of the structure and development of shipping
- ❑ Traffic-economy matters in general
- ❑ Loan and support questions for port and shipping purposes
- ❑ Short and long-term financial planning involving the whole organisation of SMA
- ❑ Budget and budget control
- ❑ Co-ordination of the budget programme
- ❑ Financial cost estimations, investigations and the preparation of cost estimation principles
- ❑ Dues and fees
- ❑ Authorisation of ships agents
- ❑ Economic statistics

This Section administers the central credit and debit book-keeping and prepares the annual accounts and reports concerning the financial administration. The division is also responsible for invoicing and archiving/filing/storing valuable documents. In addition to this the Section shall be an accounting centre for GMSA and the Merchant Welfare Service and be responsible for the education and development of the financial accounting system.

4.4.9.3 Informatic Section

This Section is responsible for the data processing service provided. Furthermore it deals with the development of automated data processing, personnel matters and office services.

4.4.9.4 Library and Publication Section

This Section will deal with the managing of the library, which will have maritime books, publications, and conventions available to GMSA personnel as well as the public for reference. At the same time it will be in charge of the publication of documents published by the GMSA or international agencies related to maritime matters available to the public, which will have to pay a fee in order to receive these

publications. Some of these are the List of Lights, the Guatemalan Pilot, and Notices to Mariners and Notice to Boats (information for pleasure craft traffic).

4.4.10 Marine Environmental Department

Countries all over the world are taking the protection of their environment very serious. This also includes the maritime environment, which in my opinion is the most important. Because it is estimated that 90% in volume of international commerce is done through the oceans and in value terms 40% (Ma 1999) of the world's trade is moved by sea. Country's economies depend on maritime activities whether they like it or not. Most countries export and import merchandise through their ports. The countries that are managing their maritime affairs in a more safe and secure maritime environment have created a more developed economy. Guatemala, as it was stated before, is a maritime country because it has access to two seas, where it has ports to export and import goods by ship. More than 1700 ships visit Guatemalan last year and more than 259,002 in 40 ft. containers and 459,776 in 20 ft. containers. Other cargo like General Cargo, Ro-Ro Cargo, Liquid Bulk and Dry Bulk and Dangerous Goods were also handled by the ports in great numbers (48,833 TM) (Guatemala National Port Commission 2000). The revenues generated by this volume of commercial trade makes this situation of vital importance for the Guatemalan economy. However, the possible problems that can be caused by these traffic requires the government to implement, regulate, control and supervise contingency plans in the port areas for pollution from ships as well as from maritime industries that handle dangerous goods merchandise. This should be done in order to protect its maritime environment and create a safe and secure environment at the same time helps the national economy to develop.

A country's maritime jurisdiction provides an enormous amount of natural resources for the maritime state, which help it to develop its economy. These natural resources like gas, oil, iron, gold, silver and other precious metals have to be explored and exploited by that nation. Guatemala is extremely rich in natural resources within its maritime jurisdiction, therefore the government should have technical advisers that can make recommendations to protect its national maritime jurisdiction and to develop a policy of sustainable development for these resources.

As well as the adequate personnel for making hydrographic and oceanographic research and survey.

In conclusion this department will handle all the matters concerning the above matters in the port area from industries, from ships, in lakes, rivers and the maritime jurisdiction.

4.4.10.1 Contingency Planning Section

In order for countries to import and export their goods, they need to have safe, secure and environmentally protected ports in their maritime jurisdiction to allow for trans-shipment, to ensure that natural resources can be protected from pollution and over exploitation, and that maritime recreational activities can be enjoyed. Countries have established contingency plans at a national level in the maritime areas. Today countries have also established regional contingency plans with neighbouring countries so they can tackle big contamination or pollution problems that might occur. Guatemala has a contingency plan at a national level and the Ministry of Defence through the Navy is in charge of it. The same is not true, however, at the international level. The problem is that there is a lack of co-operation from the private sector. Guatemala needs to pass laws of regulation that obligates all sectors of society to protect the environment and to have contingency plans where needed. This Section will be in charge of promoting laws and to supervise, control and co-ordinate contingency plans at a national and regional level. The operations themselves will continue to be done by the Navy. The main missions of this Section are to:

- ❑ Harmonise the actions/activities of all the port authorities, private companies and other governmental agencies involve
- ❑ Ensure pooling of resources and skills
- ❑ Identify the nature/extent of actions to be taken by each party in a given situation
- ❑ Be cost-effective
- ❑ Permit concentration of attention on vulnerable areas identified in advance

4.4.10.2 Marine Resources Section

Maritime countries have rich natural resources in their maritime jurisdiction. Guatemala is no exception to this. As a matter of fact it has extreme possibility to exploit the rich quantities of natural resources in its maritime jurisdiction, as it was mentioned in Chapter Two. Guatemala should protect, regulate, control and conduct scientific studies so it can explore and exploit these natural resources. Nevertheless the country should like other countries, have a policy of sustainable development. This permits them to take advantage of the natural resources and at the same time leave enough resources for future generations. The government has to implement laws so that a sustainable development policy can be managed. This Section will deal with advising the government to pass the necessary laws and policies to protect and control the natural resources it has in its maritime jurisdiction. Make scientific studies on living and non-living resources, keep statistics of the natural resources being exploited, implement control regulations and supervise the equipment or construction being used/done at sea.

4.4.10.3 Hydrographic and Oceanographic Section

Countries all over the world are making hydrographic and oceanographic scientific studies to have knowledge of where and what natural resources they have. The way they do this is by doing maritime surveys, produce statistics, writing publications, producing nautical charts and so on. This permits the country to have the possibility to inform their citizens of development opportunities and at the same time protect and regulate the natural resources in its maritime jurisdiction. This Section will be in charge of these matters and, the main duties it will have are:

- ❑ Evaluation of hydrographic results also the training and education
- ❑ Matters regarding military personnel within the hydrographic activities
- ❑ Exploring activities
- ❑ Oceanographic, geodetic, photogrametric, hydrologic and sea resource matters
- ❑ Production and correction of public nautical charts
- ❑ Publication of public nautical charts
- ❑ Production of nautical publication, printing activities

In conclusion this organisation was presented because in the view of the author it is the most adequate and possible way that it can be implemented, in a tight and compact administration which has all of the necessary departments and sections in order for it to function. The aspects and present maritime situation of the country described in Chapter Two were taken into consideration in order to arrive at a feasible solution. Another important matter taken into consideration were the examples of the maritime safety administrations presented in Chapter Three. This proposal represents a starting point. As the maritime activities in Guatemala progress, the proposed plan organisation can be updated and revised for improvement.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

In this Chapter the author will present the conclusions and recommendations based on the geopolitical, economical, natural resource and geopolitical situation of Guatemala and from the three examples of the maritime safety administrations presented in the previous Chapters.

Guatemala's geographical location is of great strategic importance. Guatemala is the westernmost country of Central America and it has the privilege of having access to two oceans, the Atlantic and the Pacific Ocean. This setting makes Guatemala a maritime country with excellent potential to develop its maritime activities and economy. Because of this the country can do direct sea trading with all continents having to go through any intermediary port, canal or channel to deliver or receive goods. This gives Guatemala an important advantage over countries that are either landlocked or only have access to only one ocean. Unfortunately, due to its historical roots Guatemala, has not paid much attention to its maritime activities and is therefore not developing to its maximum potential. Guatemala needs to develop this advantage and the best way it can do it is by creating the Guatemalan Maritime Safety Administration (GMSA). This agency will help develop and maintain this strategic advantage for the good of the country and, even more, for the development of its economy.

Countries all over the world depend on international commerce. Professor Sho Ma (1999) wrote that it is roughly estimated that 90% in volume and 40% of the value is done via the sea. Guatemala's is not any different from the rest of the countries in the world, in relation to this, especially since CONSORCIO (1997) revealed that statistics demonstrate that more than 65% of export and more than 58% of the imports of Guatemala are carried out by sea. This is an extremely important fact

that should not be overlooked. Guatemala needs to look at these statistics more closely because these facts clearly demonstrate that Guatemala's economy depends a great deal on the commercial sea trade.

Guatemala relies on its national ports for the export and import of goods. Nevertheless for the transport of these goods to other ports of other countries Guatemala depends on foreign flag merchant marine vessels because it has no fleet of its own. Not only is Guatemala losing out on possible revenue by not having its own fleet, it is not regulating, controlling and supervising the safety of human life at sea, vessel safety, the security of goods and property and the protection of the marine environment to its best advantage. As a consequence of this problem, many accidents occur in Guatemalan national port areas to vessels and to the marine environment within its maritime jurisdiction. These accidents have caused the loss of many lives, loss in millions of dollars in damage to property and loss and/or non-renewable natural resources due to contamination and/or pollution. Guatemala should regulate, control, supervise and manage its national port areas, visiting vessels and maritime jurisdiction in order to provide a safe and secure maritime environment. By doing this, Guatemala can safely maintain and develop its commerce interest; and therefore, develop its economy. By creating this agency Guatemala's maritime matters can be managed in a better and more efficient way and, as a result, its economy will develop much more. It is important to create a GMSA to be in charge of the above issues.

The GMSA will also encourage the creation of a safe and professional nationally owned flag fleet or a foreign owned national flag fleet. Thus, it can have gross tonnage in its national register so it can be known in the maritime industry as an important and excellent flag state and not as a flag of convenience. Guatemala will utilise these vessels to transport its import and export of goods to other countries. This national fleet will stimulate the economy by charging less expensive fees for the transport of goods, and at the same time create employment for Guatemalan seafarers on its national flag vessels and on board other flag vessels. As a final result the economy of the country and maritime prestige will be developed by the GMSA.

The natural resources that a country possesses are material that fortify and develop its economy. All countries depend on their natural resources to develop the country as a whole. Guatemala is very privileged to have so many resources not only on land but also especially within its maritime jurisdiction. Many scientific studies and surveys were shown in Chapter two and appendix C, which represented Guatemala's rich quantities of natural resources worth billions of dollars in fish, oil, gas, iron, precious minerals and other materials. The problem is that foreigners, not Guatemalans, are exploiting the country's natural resources and in the process are contaminating, polluting and therefore destroying them. This is proven by the many detentions ordered by the Guatemalan Navy of foreign flag vessels misusing the natural resources in Guatemala's national maritime jurisdiction.

Also under UNCLOS, it is indicated that countries must conduct surveys on the area beyond the exclusive economic zone, called its continental platform, of its natural resources so it can declare jurisdiction over it. If a country does not do this, other countries can come in and do it, and therefore declare Guatemala's continental platform as their own jurisdiction, resulting in Guatemala's loss of these natural resources. This problem, in the author's opinion, must be acted upon by Guatemala so it won't lose these rich natural resources. The future creation of the GMSA would help to control, supervise and manage these natural resources and protect the marine environment from contamination and pollution by regulating it, as well as making hydrographic and oceanographic surveys and studies to stimulate growth and exploitation of these natural resources, and once again develop Guatemala's economy.

Also under UNCLOS all maritime countries have the right to declare a maritime jurisdiction comprised of a territorial sea zone, a contiguous zone and an exclusive economic zone. Which Guatemala has the privilege of having maritime jurisdictions in both the Atlantic and the Pacific Oceans, it has not signed any boundary treaties with its neighbouring countries. This situation has caused problems in the past, for example, with Belize where big disputes of land and maritime jurisdiction exist. Recently, just in March of this year, Honduras unilaterally and without consultation declared its maritime jurisdiction over waters that are historically thought of as

belonging to Guatemala. As a result of not previously signing fixed boundary treaties, Guatemala has lost maritime jurisdiction and, therefore, rich natural resources. There even exists the possibility of Guatemala's losing the access to the Atlantic Ocean (Prensa Libre 2000 and Prensa 2000). Guatemala should have a governmental agency in charge of advising the government in relation to maritime jurisdictional issues, because these maritime matters are very special and different from regular governmental matters. The GMSA as proposed in this paper could very well be that agency. As a result, the country can optimise its negotiations with its neighbouring countries when negotiating their maritime jurisdictions, and thus protect and defend its maritime interests for the good of its economy.

Maritime activities are regulated, controlled, supervised and managed in all countries all over the world because commerce/trading is international. The international community has even implemented the International Maritime Organisation (IMO) to regulate maritime activities in order to provide safety and security to human life, loss or damage to private property and to protect the maritime environment from any contamination and pollution. Guatemala is a member of this international agency, however at the present time the country is not applying IMO conventions that have been ratified or to be specific has not created a strong enough national legal regime to regulate, control, supervised and manage the maritime activities in its maritime jurisdiction. Guatemala also needs to ratify other important conventions that presently have not been ratified and which are very critical to manage the maritime activities in the country. The problem is that Guatemala does not have a formal maritime safety administration in charge of handling national and international legal matters, and thus advising the government on what laws, decrees, acts and regulations to pass. If it did, the result would be the optimal legal regime to protect Guatemala's maritime interest and activities. The creation of the GMSA will ensure that the necessary advice to the government is available so it can pass the optimal legal regime to protect its maritime activities and jurisdiction. Also this agency will create a safe and secure maritime environment by protecting human life at sea, damage to private property, and the marine environment. This will result in the stimulation of maritime activities and also in the development of the economy.

Guatemala was greatly affected by the civil war, which was a by-product of the cold war. Until today it was one of the longest civil wars in world history; it ended in 1997 after more than 36 years of war. This was a terrible and useless war which at the end it not only damaged the economy but distracted politicians from day to day governmental matters and in a way created division between some political groups and non-governmental organisations and the military. The only thing this division has accomplished is to block or disturb the development of the economy. It is time that the politicians in the country start to pay attention to maritime matters by giving the proposed GMSA the necessary political back up and resources so maritime activities can function adequately. The government should create a maritime safety administration under the Ministry that already has resources and personnel available to manage this agency because it will be too costly for the country to start to purchase new equipment and construct new facilities. Further, it will take at least 10 years to educate the proper personnel to manage this technical field in this agency. The Guatemalan Navy by history and tradition has been the maritime safety administration, even if it was so in an informal way. The problem is that it does not have the legal regime strong enough to manage maritime activities and more importantly the political willing of the government. The Guatemalan Navy should be considered the one in charge of the Guatemalan Maritime Safety Administration since it has the resources, facilities, personnel and willing to do the best job possible for the good of the country. It should not be forgotten that military personnel are highly nationalistic, motivated and reliable. Also for strategic reasons it is better to have the Navy, because they will be there twenty-four hours a day all year round. They do not get paid over time, their salary is less, training is more accessible. Chile and the United States of America have their maritime administration under a military structure and it functions very well. On the other hand, the Swedish Maritime Administration is under civilian structure but relies a great deal on the Swedish Navy and mainly on the Coast Guard to carry out the operational part. Therefore, based on the above reasons there is nothing wrong in creating the Guatemala Maritime Safety Administration under the Ministry of Defence and within the Navy. This special agency in Guatemala should work under a military structure because is more economical and strategic.

Taking into consideration all of the above matters and the ones cover in the previous chapters, the author recommends an agency in charge of maritime safety matters and related activities within its national maritime jurisdiction be created. This special agency will be under the Ministry of Defence within the Navy, since it presently has the resources such us docks, offices, laboratories, other facilities, vessels, helicopters, planes and other equipment as well as adequate personnel to manage these matters.

References

- American Psychological Association (1997) Publication Manual of the American Psychological Association (4th ed.). U.S.A.: American Psychological Association.
- Böke, R. (1993). Training proposals for nautical surveyors in Chile. Unpublished master's thesis, World Maritime University, Malmö, Sweden.
- Brown, E. (1986). The area beyond the limits of national jurisdiction, (Vol. 1). USA: Graham & Trotman Inc.
- Brown, E. (1986). The area beyond the limits of national jurisdiction, (Vol. 2). USA: Graham & Trotman Inc.
- Brown, E. (1986). The area beyond the limits of national jurisdiction, (Vol. 3). USA: Graham & Trotman Inc.
- "Boundary: Congress members' criticise the maritime boundaries set by Honduras". (2000, July 13). Prensa Libre. Retrieved July 13, 2000 from the World Wide Web: <http://www.prensalibre.com/noticias1471361017.htm>.
- Brittin, B.H. (1986). International law for seagoing officers. Annapolis: Naval Institute Press.
- Brunings, G. (1999) Maritime transport of dangerous goods. Unpublished lecture handout, World Maritime University, Malmö, Sweden.
- Cerda, P. Personal interview. 2 Oct. 1999.
- Charney, J. L. & Alexander L.M. (1996). International maritime boundaries. Netherlands: Martinus Nijhoff Publishers.
- Chilean General Directorate of the Maritime Territory and the Merchant Marine (DIRECTEMAR). (1999) DIRECTEMAR home page. Retrieved January 27, 2000 from the World Wide Web: <http://directemar.cl.htm>.

"Conflicts in the region". (2000, July 13). Prensa Libre. Retrieved July 13, 2000 from the World Wide Web: <http://www.prensalibre.com/noticias1471361017.htm>

Decree 56-96, Guatemala City, Guatemala, Congress of the Republic of Guatemala (1996).

Elsemann, J. Personal interview. 1 May 2000.

Erickson, P. Personal interview. 5 Sep. 1999.

"Rich resources of oil discovery in the Atlantic Ocean". (1999, September 5). Diario Tiempo. Retrieved September 5, 1999 from the World Wide Web: <http://www.tiempo.hn/frmain02.htm>.

Garcia, H. (1999) Existence and tendencies of the Guatemalas's maritime authority. Unpublished promotion to Captain thesis, .Guatemalan Navy, Guatemala.

Garcia, H. Personal interview. 10 Dec. 1999.

Garrido, L. Personal interview. 12 Dec. 1999.

Glowka, L. (1996). The deepest of ironies: genetic resources, marine scientific research, and the area, ocean yearbook. USA: Chicago University Press. <http://www.odci.gov/cia/publications/factbook/qt.html>.

Gracia, L. Personal interview. 10 Feb. 2000.

Guatemala/Belize/Mexico/Honduras/El Salvador. Map. (1999, March 5) Lanic. Retrieved August 12, 1999 from the World Wide Web: http://www.state.gov/www/background_notes/guatemala.

Guatemala (2000, May 3). CIA World Fact Book. Retrieved August 14, 1999 from the World Wide Web: <http://www.cia.gov/cia/publications/factbook/qt.html>.

"Guatemala is against limits set by Honduras". (2000, July 13). La Prensa. Retrieved July 13, 2000 from the World Wide Web: <http://www.laprensa.hn.com/natarec/0007/n13001.htm>.

- "Guatemala a fisherman's paradise". (1999, August 9). Guatemala Unlimited. Retrieved August 12, 2000 from the World Wide Web: http://hometown.aol.com/ht_a/guatemala/htm1/fish.htm.
- Hacker D. (1998). A writer's reference. (3rd ed.) U.S.A.: Berford Books.
- Hasselblad, C. (1988) Maritime administration in Sweden with emphasis on maritime safety administration. Unpublished master's thesis, World Maritime University, Malmö, Sweden.
- Hodgson, D. (1999). Cost of maritime administration. Unpublished lecture handout, World Maritime University, Malmö, Sweden.
- Hodgson, D. (1999). Maritime administration seminar. . Unpublished lecture handout, World Maritime University, Malmö, Sweden.
- Hodgson, D. (1999). Overview of Maritime Administration. Unpublished lecture handout, World Maritime University, Malmö, Sweden.
- Hodgson, D. (1999) Principles of Public Administration. Unpublished lecture handout, World Maritime University, Malmö, Sweden.
- Hodgson, D. (2000) Contingency planning, search and rescue, salvage and pollution emergency. Unpublished lecture handout, World Maritime University, Malmö, Sweden.
- "Honduras does not damage the interest of Guatemala". (2000, July 13). La Prensa. Retrieved July 13, 2000 from the World Wide Web: <http://www.laprensahn.com/natarc/0007/n13001.htm>.
- IMO (1978). Consolidated text of the International Convention for the Safety of Life at Sea, 1974, and its Protocol of 1978: articles annex and certificates. IMO Convention. London: IMO.

- IMO (1978). International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78). IMO Convention. London: IMO.
- IMO (1995). International Convention on Standards of Training, Certification and Watchkeeping for Vessel Personnel (STCW), 1995. IMO Convention. London: IMO.
- International Maritime Organisation (1999, June 4) IMO home page. Retrieve March 10, 2000 from the World Wide Web: <http://www.imo.org>.
- Jogata, S.P. (1999) United Nations on the law of the Sea. Unpublished lecture handout, World Maritime University, Malmö, Sweden.
- Jonsön, J. A. (1999) Survey and certification under SOLAS. Unpublished lecture handout, World Maritime University, Malmö, Sweden.
- Jonsön, J. A. (1999) Swedish Maritime Administration. Unpublished lecture handout, World Maritime University, Malmö, Sweden.
- Jonsön, J. A. Personal interview. 29 Jun. 2000.
- Jonsön, J. A. (2000) Life saving appliances under SOLAS. Unpublished lecture handout, World Maritime University, Malmö, Sweden.
- Jonsön, J. A. (2000) Principles of ship and equipment design and construction. Unpublished lecture handout, World Maritime University, Malmö, Sweden.
- Larson, F. (2000) Survey and certification under MARPOL I. Unpublished lecture handout, World Maritime University, Malmö, Sweden.
- Larson, F. (2000) Survey and certification under MARPOL II. Unpublished lecture handout, World Maritime University, Malmö, Sweden.
- Legislative Decree. Regulating the authority of the Port Captain, Guatemala City, Guatemala, Assembly Legislative (1939).

- Legislative Decree 2535, Guatemala City, Guatemala, Assembly Legislative (1941).
- Legislative Decree 20-76, Declaration of national maritime jurisdiction, Guatemala city, Guatemala, Congress of the Republic of Guatemala (1976).
- Liljedahl, J. (2000) Human factor. Unpublished lecture handout, World Maritime University, Malmö, Sweden.
- Liljedahl, J. (2000) Training, exam and certification of officers and crew. Unpublished lecture handout, World Maritime University, Malmö, Sweden.
- Lindsström, L. (2000, January, 15) Annual report for the year 1999. Swedish Maritime Administration. Retrieve January 28, 2000 from the World Wide Web: <http://www.sjofartsverket.se>.
- Mann Borgese, E. (1995) Ocean governance and the United Nations. Canada: Centre for Foreign Policy Studies Dalhousie University.
- Mann Borgese, E. (1999) The International Sea Bed Authority: New Task. Canada: Dalhousie University, International Ocean Institute Canada.
- Ma, S. (1999). Maritime economics. Unpublished lecture handout, World Maritime University, Malmö, Sweden.
- Ministerial Decree Ratification instrument of the Guatemalan government, on the United Nation Law of the Sea, Guatemala, Ministry of Exterior (1996).
- Morris, W. The American Heritage dictionary (2nd ed.) 1982. U.S.A.: Houghton Mifflin.
- Mukherjee, P. (1999) International marine environmental law seminar. Unpublished lecture handout, World Maritime University, Malmö, Sweden.
- Mukherjee, P. (1999) Governments controls: enforcement and compliance. Unpublished lecture handout, World Maritime University, Malmö, Sweden.

- Mukherjee, P. (2000) ISM Code, STCW and safety management systems. Unpublished lecture handout, World Maritime University, Malmö, Sweden.
- Mukherjee, P. (2000) Maritime safety management. Unpublished lecture handout, World Maritime University, Malmö, Sweden.
- Murtaugh, I. (2000) Maritime casualty investigation: technical aspects. Unpublished lecture handout, World Maritime University, Malmö, Sweden.
- Nowell, P. (1999). Maritime law class assignment. Unpublished, World Maritime University, Malmö, Sweden.
- Nowell, P. (1999). Maritime safety administration seminar class assignment. Unpublished, World Maritime University, Malmö, Sweden.
- Ocean and Law of the Sea (1998, October 13) UN. Retrieve August 14, 1999 from the World Wide Web: <http://www.un.org/Depts./los.los94.html>.
- Pardo, F. (1999). Principles and effect of sea used. Unpublished lecture handout, World Maritime University, Malmö, Sweden.
- Pardo, F. (1999). Prevention and combating of marine pollution. Unpublished lecture handout, World Maritime University, Malmö, Sweden.
- Pernetta, J. (1983). The times atlas of the ocean. UK: London times books limited.
- Pillado, R. (1986) Maritime safety administration in Chile, World Maritime University, Malmö, Sweden.
- Political Constitution of the Republic of Guatemala, Guatemala city, Guatemala (1985).
- Posadas, M. Personal interview. 28 Nov. 1999.
- Prescott, J. (1985). The maritime political boundaries of the world. UK: Methuen & Co. Ltd.
- Preston, M. (1999) Principle and effects of sea use. UK: University of Liverpool.

Regional Operative Net of Co-operation of Maritime Matters of Central America and Central American Commission of Maritime Transport Conference (1999).
ROCRAM-CA Strategy for maritime and port security final document. El Salvador: ROCRAM-CA and COCATRAN.

Regional Operative Net of Co-operation of Maritime Matters of Central America and Central American Commission of Maritime Transport Conference (1999).
ROCRAM-CA Strategy for protection fo the environment final document. El Salvador: ROCRAM-CA and COCATRAN.

Ramos, C. (1995) The maritime administration of Guatemala, El Salvador and Honduras. Unpublished master's thesis, Maritime Institute of Spain, Madrid, Spain.

Ramos. C. Personal interview. 5 Dec. 1999.

Schararz, C. Chambers thesaurus: Edinburgh Chambers. 1991. U.S.A.: Chambers

Smith, C. Collins Spanish-English, English-Spanish dictionary. 1971. U.K.: Collins.

Swedish Maritime Administration. (1999). Swedish Maritime Administration. Retrieve March 15, 2000 from the Swedish Maritime Administration on CD.

Swedish Maritime Administration. (1999). Swedish Maritime Administration home page. Retrieve May 28, 2000 from the World Wide Web:
<http://www.sjofartsverket.se>.

The Organic Law of the DIRECTEMAR, Valparaíso, Chile, DIRECTEMAR (1953).

The Navigation Law, Valparaíso, Chile, DIRECTEMAR (1978).

The American Heritiage Larousse Spanish-English dictionary. 1986. U.S.A.: Houghton Mifflin.

The Oxford-Duden pictorial Spanish-English dictionary. (Limp ed.) 1988. U.S.A.: Clareton Press.

- United Nations 1984. Law of the Sea. UN. Retrieve August 14, 1999 from the World Wide Web: <http://www.un.org/Depts./los.los94.html>.
- United States Coast Guard (1995). Model maritime service code. U.S.A.: U.S. government printing office.
- United States Department of Transportation Maritime Administration (1999). Maritime Administration 1998 annual report. U.S.A.: Clyde J. Hart, Jr.
- United States Coast Guard (2000, May 8). USCG home page. USCG. Retrieve May 28, 2000 from the World Wide Web: <http://www.uscg.mil>.
- Valenzuela I. (1994) Martime safety administration response procedures in cases of red tide emergencies recommendations based on the Chilean experience. Unpublished master's thesis, World Maritime University, Malmö, Sweden.
- Vanchiswar P. (1996) Establishment/Administration of maritime matters with particular reference to developing countries: Maritime Administration/Maritime Safety Administration: Volume I. Sweden, World Maritime University.
- Vanchiswar P. (1996) Establishment/Administration of maritime matters with particular reference to developing countries: Model of a merchant shipping act/code: Volume II. Sweden, World Maritime University.
- Wisall, F.L. (2000) Maritime casualty investigation: legal aspects. Unpublished lecture handout, World Maritime University, Malmö, Sweden.
- Yopo, B. (1995) The Anglo-Belize/Guatemala territorial issue. Chile: University of Chile Institute of International studies.
- Zerega, T. (1988). The main operational functions to be considered by the Chilean Maritime Safety Administration. Unpublished master's thesis, World Maritime University, Malmö, Sweden.

APPENDIX A

GUATEMALAN PORTS

The more important ports of Guatemala, Port Barrios and Port Santo Tomas de Castilla, are located in the Amatique Bay and in the Honduras Golf in the Atlantic Ocean respectively. The Ports of Port Quetzal, Port San Jose and Port Champerico are located on the south littoral in the Pacific Ocean. In accordance with CONSORCIO (1996) statistics the Port of Santo Tomas de Castilla and the Port of Barrios (Caribbean Sea) handle about 48% of the imports and exports of the country, i.e. 52% in Port Quetzal and Port San Jose on the Pacific littoral. Port San Jose is also used for some fishing but Port Champerico is mainly and only used at the present time as a fishing port. Guatemala has a National Port Commission that is in charge of co-ordinating and advising the national ports, but unfortunately it is inefficient. This is due to the unwillingness to co-operate and the mentality of the people in charge in the different ports. They are afraid of losing control and power over the port. Therefore this commission is not working properly. Each of the ports mention above has different administrative characteristics, which will be described below:

- **Port of Santo Tomas de Castilla: (see Figure A1)**

Founded in the 1950s, this port is under the control of the Ministry of Communication and Public Works. It was created to compete with Port Barrios, which at that period was the property of the United Fruit Company. Since that time it has functioned as a National Port Company, administrated and operated by the State, with the exception of some basic services, such as the cargo handling, which has been privatised.

- **Port Barrios (see Figure A1)**

Port Barrios is a mixed port (State – Private Company), which at one time was property of the banana, enterprise United Fruit Company, and operated by the North-American International Railroad of the Central America Company (IRCA). After the political changes that occurred in the country in 1950 this passed to be part of the State and on 4 February 1976 it was destroyed by an earthquake. From the

root of its destruction, its reconstruction was done with capital from the State and the private sector, and it is been operated and managed by the Bananera Independiente de Guatemala Company (COBIGUA). COBIGUA has leased the company from the State by intermediate of a contract for a period of twenty five years since 1990.

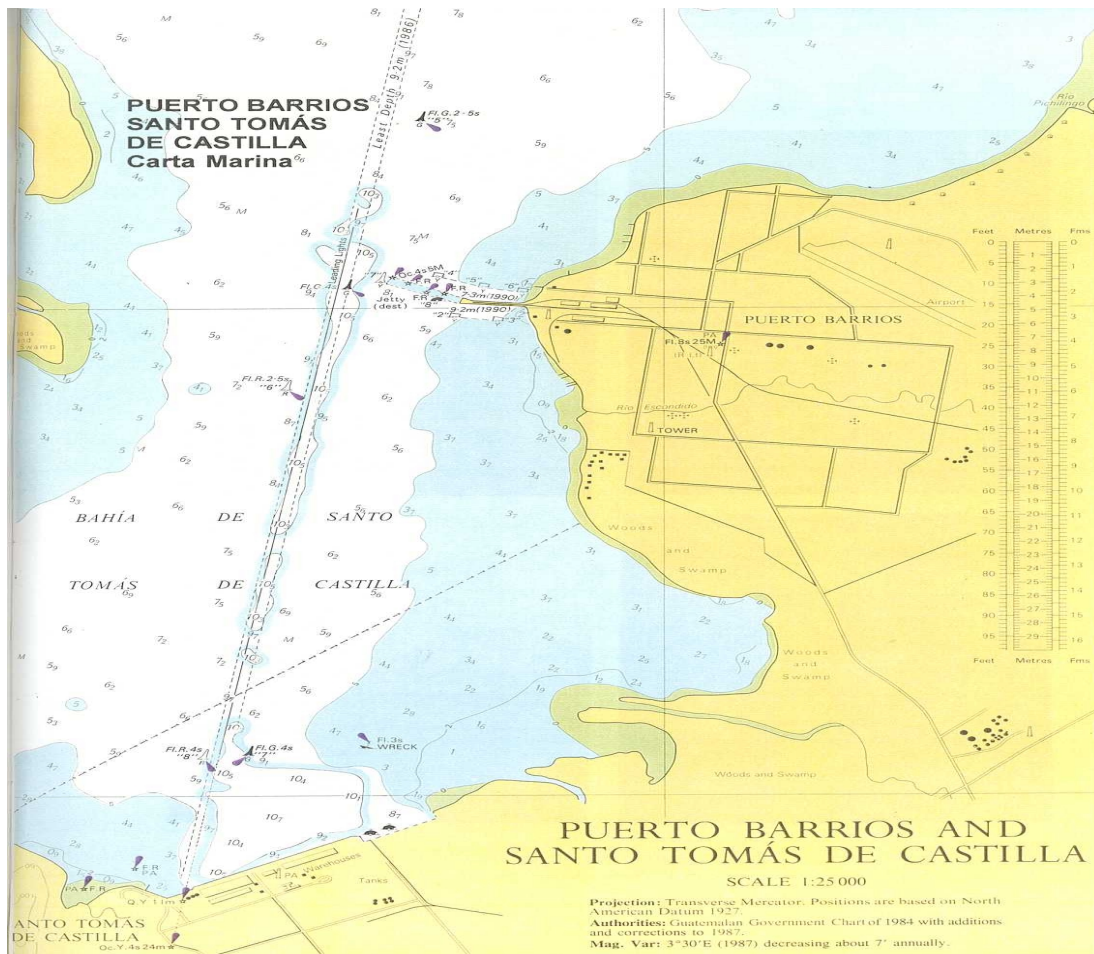


Figure A1 Chart of Port Santo Tomas de Castilla and Port Puerto Barrios

Source: Guatemalan Geographical Institute (1998)

- **Port of Champerico (see Figure A2)**

This port is the oldest Guatemalan port located on the Pacific Coast. The National Port Company of Champerico still works under the organic law of the Ministry of Finance, Decree No. 334 of June 29 1955. With the initiation of the activities of Port Quetzal and the evolution of maritime traffic, Champerico was obliterated of its functions as transshipment sea port. The old dock installations, where state is totally

precariouly, are used only by the local fishing fleet. The old cotton deposits, the boats and the tugboats are very obsolete. Therefore Port Champerico could not function as a modern port.

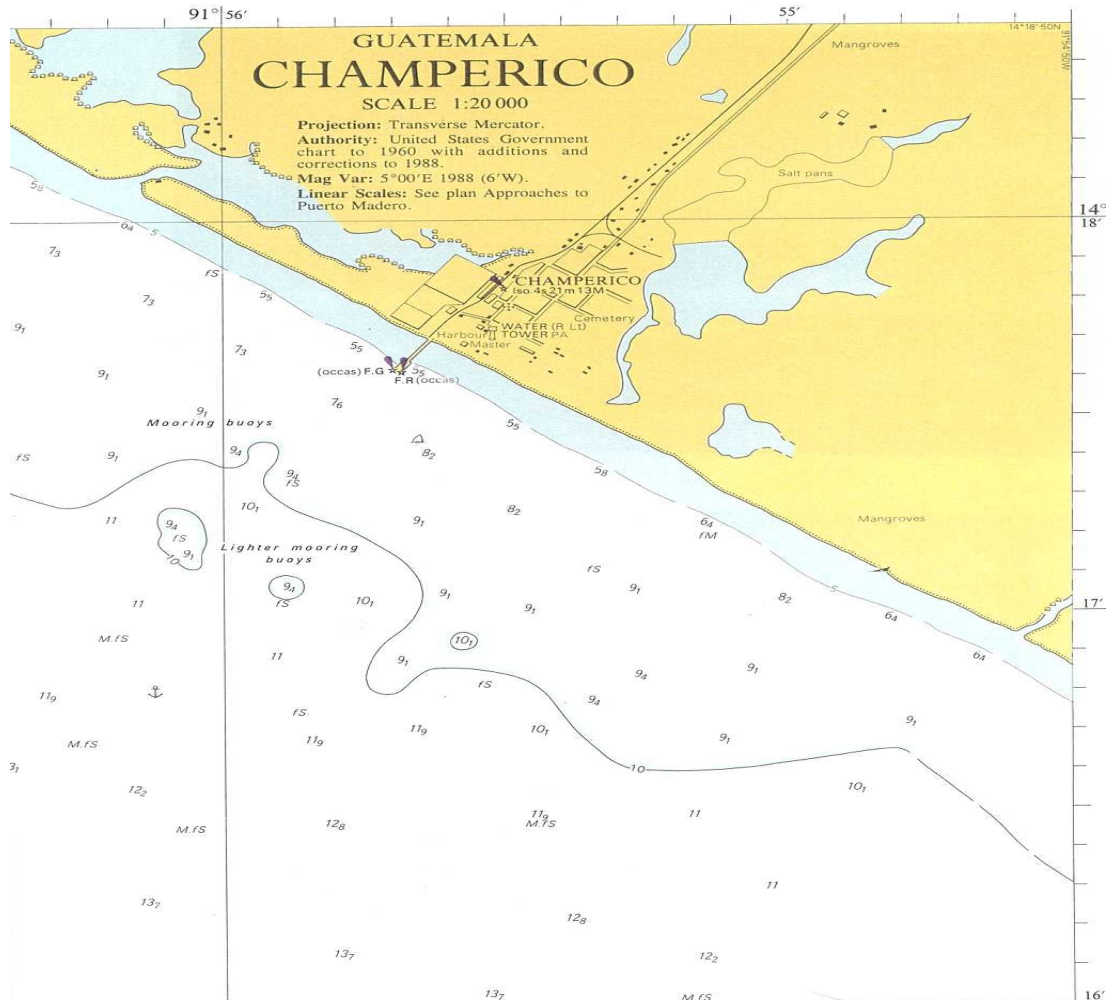


Figure A2 Chart of Port of Champerico

Source: Guatemalan Geographical Institute (1998)

- **Port San Jose (see Figure A3)**

Located in the Pacific Coast next to Port Quetzal, Port San Jose works under the organic law of the Guatemalan Railroad Company (FEGUA), which works under the Ministry of Transport. Decree No. 60-72 of October 4 1972, passed the administration of the dock of San Jose to (FEGUA), but at the present time the installations are totally precarious. This port is used mainly by artesian fisherman. In

addition to this activity there are two more, one is the exportation of molasses which is done by a private company, GRANELSA, the other is the import and export of hydrocarbons by private oil companies. This port has become obsolete since the beginning of the operation by Port Quetzal.

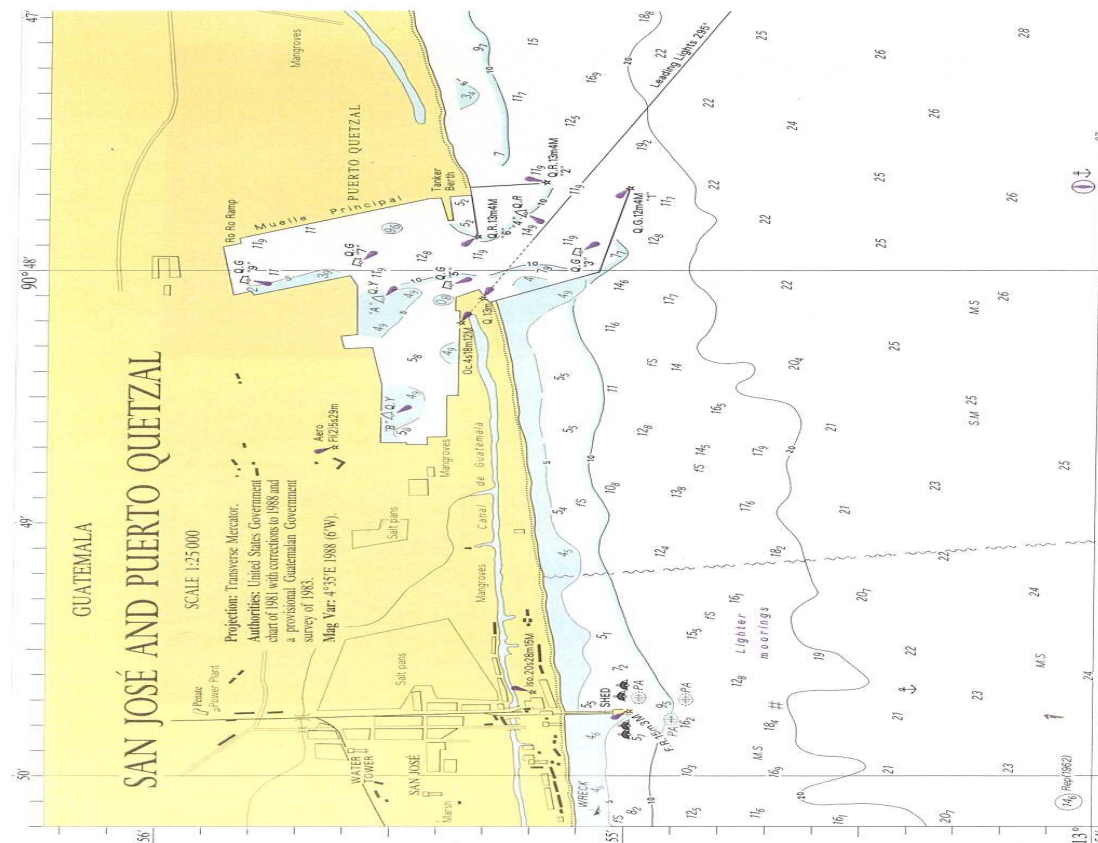


Figure A3 Chart of Port Puerto San Jose and Port Puerto Quetzal

Source: Guatemalan Geographical Institute (1998)

- **Port Puerto Quetzal: (see Figure A3)**

This is a port that was visualised as an alternative for the import and export of Guatemalan products in the Pacific Ocean for the Asian market, given the absence of a modern port in this region, and in order to encourage the competition with the Port of Acajutla of EL Salvador. Its construction was initiated by the President General Fernando Romeo Lucas Garcia and ended by the government of the President Lawyer Marco Vinicio Cerezo Arevalo, it was inaugurated at the beginning of the year 1986. Is administrated by the state through a de-centralise agency

depending directly to the Executive Power, the services are provided by private companies.

Statistics of the National Ports

The statistics of the national ports are presented to demonstrate the importance of the maritime economy that the country posse but is neglecting. Therefore the GMSA, should be created to regulate these activities. National ports were attended by more then one thousand seven hundred vessels (see Table A1). These vessels exported and imported more then one million metric tonnes of different cargoes (see Table A2). The statistics show the great increment of containers handled from the year 1996 to 1999 (see Table A3).

Table A1 Year 1999 Statistics of Type of Vessels that visit Guatemala's Ports

PORTS BY LITTORAL	PACIFIC LITTORAL						ATLANTIC LITTORAL						GRAND TOTAL
	P. Quetzal		P. San José		Total		P. St. Tomás		P. Barrios		Total		
SHIP TYPE	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.
General cargo	90	13	0	0	90	11	99	8	65	11	164	9	254
Containers	196	27	0	0	196	25	439	36	431	75	870	49	1,066
Ro/Ro	43	6	0	0	43	6	387	32	6	1	393	22	436
Liquid Bulk	38	5	65	100	103	13	160	13	15	3	175	10	278
Dry Bulk	196	27	0	0	196	25	16	1	0	0	16	1	212
Frozen	20	3	0	0	20	3	90	8	48	8	138	8	158
Mixed	0	0	0	0	0	0	0	0	0	0	0	0	0
Passengers	34	5	0	0	34	4	5	1	0	0	5	0	39
Barge/tug	0	0	0	0	0	0	0	0	0	0	0	0	0
Other type	101	14	0	0	101	13	9	1	10	2	19	1	120
TOTAL	718	100	65	100	783	100	1,205	100	575	100	1,780	100	2,563
Source: Guatemalan Port Companies.							Prepared by: National Port Commission						

Table A2 Year 1999 Statistics of the Guatemalan Port Cargo

LITTORAL	Imports	%	Exports	%	Total	%
Atlantic Ocean	3157	43	3032	67	6189	52
Port Santo Tomas de C.	2240	31	2244	49	4484	38
General cargo	251	3	176	4	427	4
Container cargo	762	11	670	15	1432	12
Ro-Ro cargo	267	4	243	5	510	4
Liquid bulk	795	11	1155	25	1950	17
Dry bulk	165	2	0	0	165	1
Port Barrios	917	12	788	18	1705	14
General cargo	102	1	73	2	175	1
Container cargo	607	8	715	16	1322	11
Ro-Ro cargo	0	0	0	0	0	0
Liquid bulk	208	3	0	0	208	2
Dry bulk	0	0	0	0	0	0
Pacific Ocean	4160	57	1484	33	5644	48
Port Quetzal	2829	39	1330	30	4159*	35
General cargo	427	6	43	1	470	4
Container cargo	417	6	167	4	584	5
Ro-Ro cargo	0	0	0	0	0	0
Liquid bulk	185	2	24	1	209	2
Dry bulk	1800	25	1096	24	2896	24
Port San Jose	1331	18	154	3	1485	13
Liquid bulk	1331	18	154	3	1485	13
Total Ports	7317	100	4516	100	11833	100
General cargo	780	11	292	7	1072	9
Container cargo	1786	24	1552	34	3338	28
Ro-Ro cargo	267	4	243	5	510	4
Liquid bulk	2519	34	1333	30	3852	33
Dry bulk	1965	27	1096	24	3061	26
*This figure does not include the 37,000 TM of tuna traffic.			Source: Guatemalan Port Companies.			
Prepared by: National Port Commission						

**Table A3 Movement of Containers/TEU's for the Year 1996 to 1999 in
Guatemalan Ports**

NATIONAL PORTS		PORT SANTO TOMAS DE C.		PORT PUERTO BARRIOS		PORT PUERTO QUETZAL		TOTAL	
Year	Operati.	Conts.	TEU'S	Conts	TEU'S	Conts.	TEU'S	Conts.	TEU'S
1996	Import	38,684	65,920	24,621	48,816	19,709	29,727	83,014	144,463
	Export	40,449	67,324	24,973	49,541	13,970	21,819	79,392	138,684
	Total	79,133	133,244	49,594	98,357	33,679	51,546	162,406	283,147
1997	Import	44,854	74,308	30,655	60,975	24,037	38,177	99,546	173,460
	Export	46,786	75,826	30,007	59,672	12,108	18,965	88,901	154,463
	Total	91,640	150,134	60,662	120,647	36,145	57,142	188,447	327,923
1998	Import	43,048	70,153	39,648	78,749	31,949	51,840	114,645	200,742
	Export	45,796	75,142	38,982	77,495	21,442	35,476	106,220	188,113
	Total	88,844	145,295	78,630	156,244	53,391	87,316	220,865	388,855
1999	Import	49,063	80,265	49,200	98,987	31,987	52,538	130,250	231,790
	Export	51,443	82,908	47,350	95,819	29,959	49,349	128,752	228,076
	Total	100,506	163,173	96,550	194,716	61,946	101,887	259,002	459,776
Source: Guatemalan Port Companies. Prepared by: National Port Commission									

APPENDIX B

LAKE AND FLUVIAL TRAFFIC IN GUATEMALA

All along the research, the author only found the following information and statistics in regards to this subject. Not much cartographic material was found with data for the deepness of the navigable ways, installations for navigation and currents. Nevertheless, it was found that Guatemala counts with a lot of inland waterways: 260 km navigable year round; additional 730 km navigable during high-water season. The Guatemalan fluvial system is predominantly obstructed its navigation by the lack of depth and torrent streams with an-number of rapids in the rivulets. The navigability of the lake and fluvial traffic is reduced to a stretch regional square, over all for the transport of the population and some small cargoes. However, the lake and fluvial traffic posses an enormous tourism potential.

- **Fluvial traffic (see Figure B1)**

With cargo volumes of particular importance is the service of transboard between Monterico and the Avellana. The transboarder craft possess a capacity of up to 6 vehicles and mainly transport tourists on the weekend, together with the vehicles of the residents.

The services of transport between Port Barrios, Port Santo Tomas, Livingston and Punta Gorda (Belice), are coastal maritime traffic then fluvial traffic. Livingston, the biggest population at the River Rio Dulce side, is not connected with any Guatemalan road. This is why regular services exist – twice per day – between Port Barrios and Livingston, for passengers and cargo.

Also twice a week there is a communication between Port Santo Tomas via Port Puerto Barrios, Livingston to Punta Gorda in Belice, for which a barge with a capacity of 60 persons operates.

On the Pacific side in the Channel of Chiquimulilla the importation of cargo apparently does not exist, but the traffic of passengers is important.

- **Guatemalan lake traffic (see Figure1),**

This traffic is done in four big lakes:

- **Lake Peten Itza**

In this lake the transport of passengers and local cargo is done with small boats with outboard motors. There is no regular traffic lane; movement is condition to the necessity of the moment.

- **Lake Atitlan**

Lake Atitlan is not only the major tourist attraction of the Solola Department but it is also known on the boundaries of Guatemala. The tourist centre is located in Panajachel, where a great number of hotels, restaurants and artesian shops exist. Regular services exist between Panajachel and Santiago Atitlan and San Pedro la Laguna . At the same time a diversity of runs are done almost exclusively for tourism reasons, which arrive at the twelve towns located at the side of the lake. A direct service between San Pedro la Laguna and Santiago Atitlan also exist. Nine local companies operate with 48 craft and all together have a capacity to transport approximately 2700 passengers. The two larger vessels have the capacity to transport 200 persons each; the other majority of vessels (15), have a capacity to transport 100 persons each.

- **Lake Amatitlan**

Lake Amatitlan is mainly used by local tourists. It is located very closed to the capital city. There are many boats which navigate around the lake in the need of the moment basis; this traffic is done mainly during the weekend.

- **Lake Izabal**

Lake Izabal is between the locations of El Estor and Mariscos daily transport of service for passengers exist with the motor vessel Nutria, with the capacity to mobilise approximately 150 persons. This service is used exclusively by the population of the region. For the transport of live bovine occasional services exist. Fronteras is located at the mouth of Lake Izabal in the River Rio Dulce. From here

transport of tourists on board boats are offered to Livingston, Castillo de San Felipe and also charters to accommodate individual needs.

The lake and fluvial traffic in Guatemala only has certain regional importance in regards to the transport of passengers and cargo, as well as for the tourism industry. It does not exist any type of liaison with the Guatemalan transport.

The transport services are in the hands of the private sector, oriented in consequence to the economical rentability. A great quantity of these services are predominantly of tourism character. This means that, with the development of the tourism transport needs' will increase.

The administrative and operative control of this traffic does not comply with the minimum necessities and in reality it only exists on paper, for example:

- The lubricant oil used, is spilled directly in to the water, destroying the ecological system of the lakes and rives.
- The irresponsible behaviour of the skippers of the boats; the worst example is the excess velocity, the emission of exaggerated noise and others; not only is safety put in danger, but also sensibly damage to the fragile fluvial and lake ecological ambient.
- The non-regulated use of jet-skids produces many chaotic situations.
- The cargo transport services do not posses the minimum safety conditions.

Due to these facts, it can be confirmed, that the state does not have proper transport services. This is good not only for the safety of the passengers and of the cargo, but also, (and this is of great importance) for the protection of the environment. This is worse even more, because the geographic landscape, panorama and environment are the ones that exactly predominantly produce the traffic.

- **Lake, fluvial and maritime tourist in Guatemala**

Other activities that provide access to the State in the coastal and maritime zones, are regulated by the Guatemalan Institute of Tourism (INGUAT). These activities

even though it is in the process of development has brought private investors who develop the economy of the country to some extent. For instance the development of vocational resorts, sailing boats and passenger ships are arriving more and more to the country.

These activities are done mainly in the lake and fluvial traffic of Guatemala by national and not as much by foreign tourism. Its important also to point out that through the ports roughly 40 passenger vessels a year visit the country. There is an increase in related activities all along the coasts of Guatemala and also in the lakes and rivers. The potential tourism of Guatemala is based on the cultural characteristics and natural resources, which are so diverse and overwhelming. The deterioration of these, influence a great deal the economy of the country because it is the third resource for money in the country.

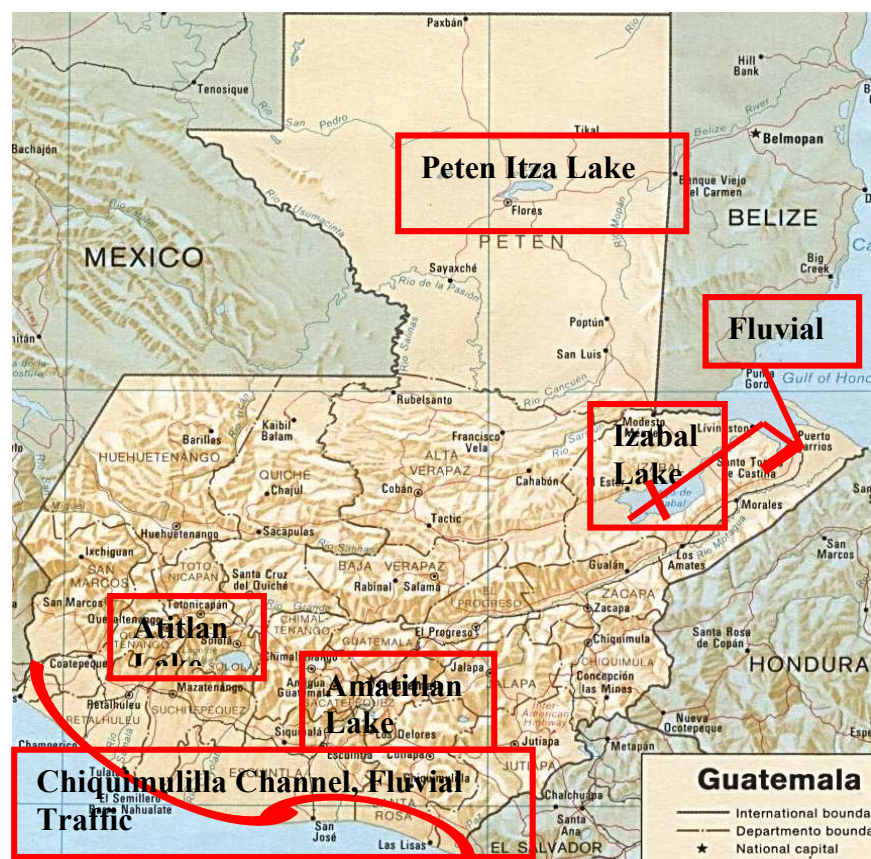


Figure B1 Guatemalan Lake and Fluvial Traffic

Source: The Times Atlas of the Ocean (1983)

APPENDIX C

GUATEMALA'S LIVING AND NON LIVING NATURAL RESOURCES

Commercial fishing is not as developed as it should be. The present national legislation (Law of Fishing) is too weak. It is being revised at the present time by the Congress of the Republic. However, the port of Champerico serves as the main Pacific port for the shrimp fleet, but port Quetzal is also very important for the fishing fleet of shrimp and fishing vessels. Guatemala has about 85 shrimp ships, 10 trawling vessels, hundreds of small well equipped fishing boats also used for commercial fishing and small boats for house hold consumption. Sport fishing has become very big on the Pacific Coast. Guatemala's Pacific coasts have been declared one of the best in the world for sport fishing. On the Atlantic coast there are 10 shrimp, trawling vessels and a good number of small boats that use the ports of Santo Tomas de Castilla and Puerto Barrios. Guatemala's fishing industries exported about 21,000 metric tons, making up a small percent of the exports of the country. Tourism is big on the Atlantic coast, due to the beautiful inland waters (Rio Dulce) where a natural resource paradise exists.

To maintain the equitable balance of these resources, the government has established a period of non-fishing for everyone, except for artesian catch. No new licenses for fishing vessels have been authorised over the last seven years. The government is doing research to keep the balance in order to maintain a sustainable development for fishing.

Preston (1999), in his lecture on Principles and Effects of Sea Use, indicates that where the mid ocean ridges are, hydrothermal vents sites exists.

These Hydrothermal vents are very rich in minerals, Mineral Smoke, with nutrients that give life to very peculiar animals (leaving resources) which live in very cool, high pressure, boiling waters environment that in fact can only exist in shallow waters and with the light of the sun; (Figure C1). This

discovery gives a very good indication why Guatemala has waters very rich in fish and will continue to have them.

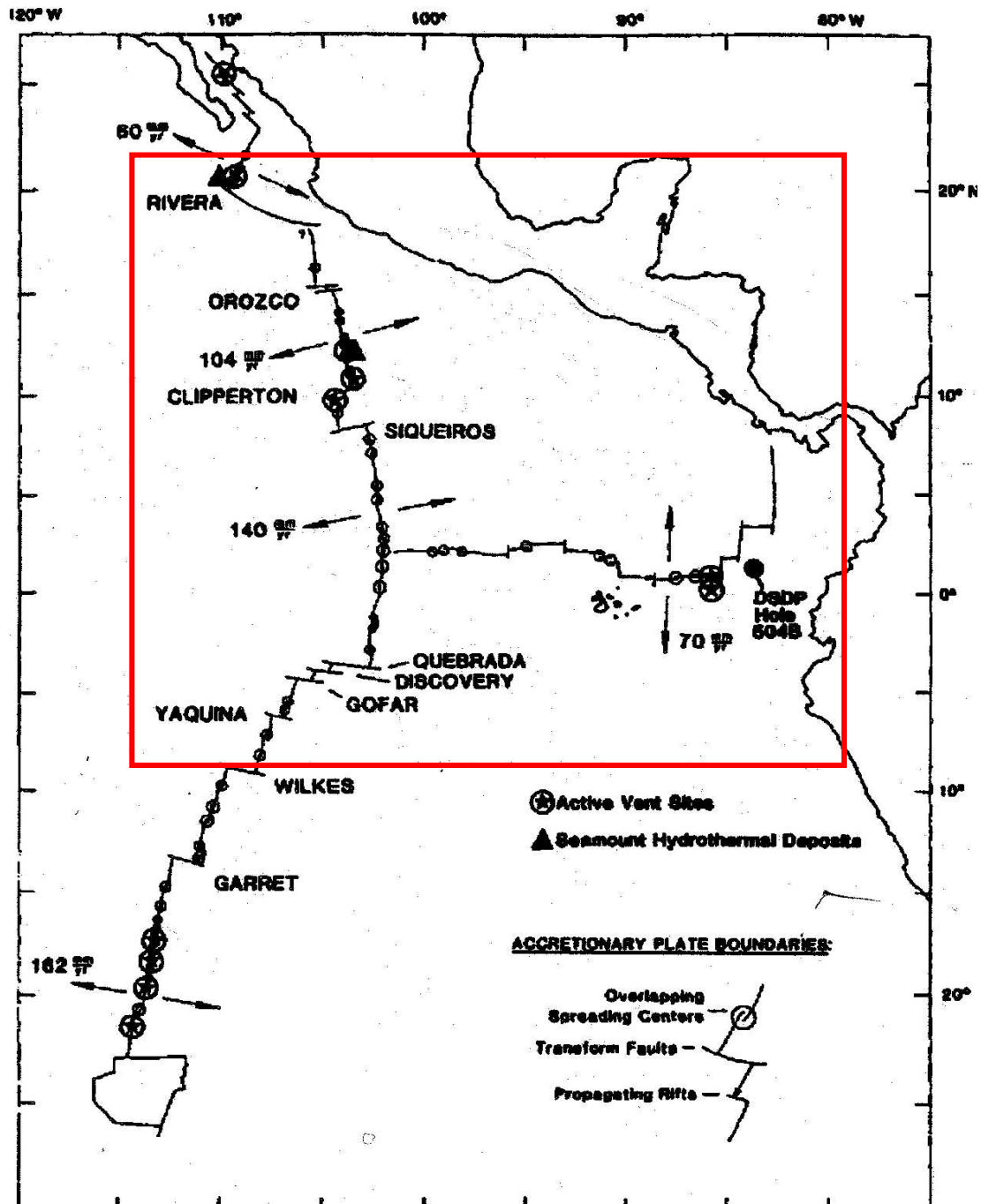


Figure C1 Hydrothermal Vents Sites in Guatemala

Source: Presto (1999)

One can see that Guatemala is very near the Equatorial currents, which with the surface currents and deep currents clearly indicate that the waters in this area are all year round warmer than the rest of the world, making it ideal for fish to inhabit.

This position was reinforced by Pernetta (1983) as follows:

The Atlantic Ocean (Caribbean Sea) has nutrient-rich water which supports a rich fishery in the area. In the Pacific Ocean 40 % of the world's harvest of finfish comes from it. Polymetallic nodules, phosphate minerals, gold and many other minerals are widely distributed throughout the deep Pacific. (Figure C2).

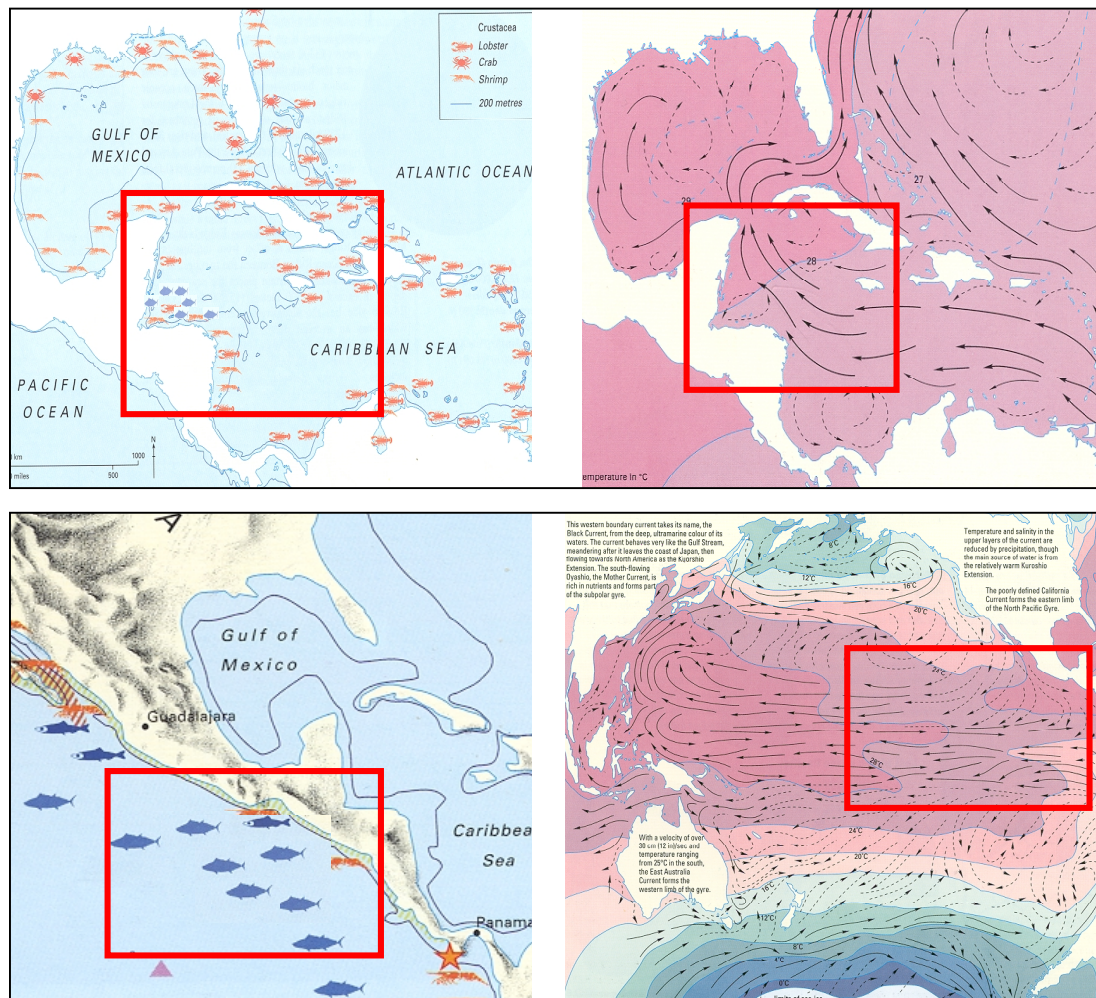


Figure C2 Rich Fishing Areas, Pacific/Atlantic Coast of Guatemala

Source: Pernetta J. (1983)

Jagota (1999), in the seminar: UNCLOS, indicated recently that:

It has been discover that where the Tectonic Plates meet and in which where sub-duction and underthrust occurs exist a very rich Polymetallic Sulphides and Cobalt Crusts banks. PS is extremely rich in gold worth billions of dollars and CC material is also very rich in materials.

This position was reinforced by Mann (1999), “This materials are found in the jurisdictional sea of Guatemala (Figure C3).

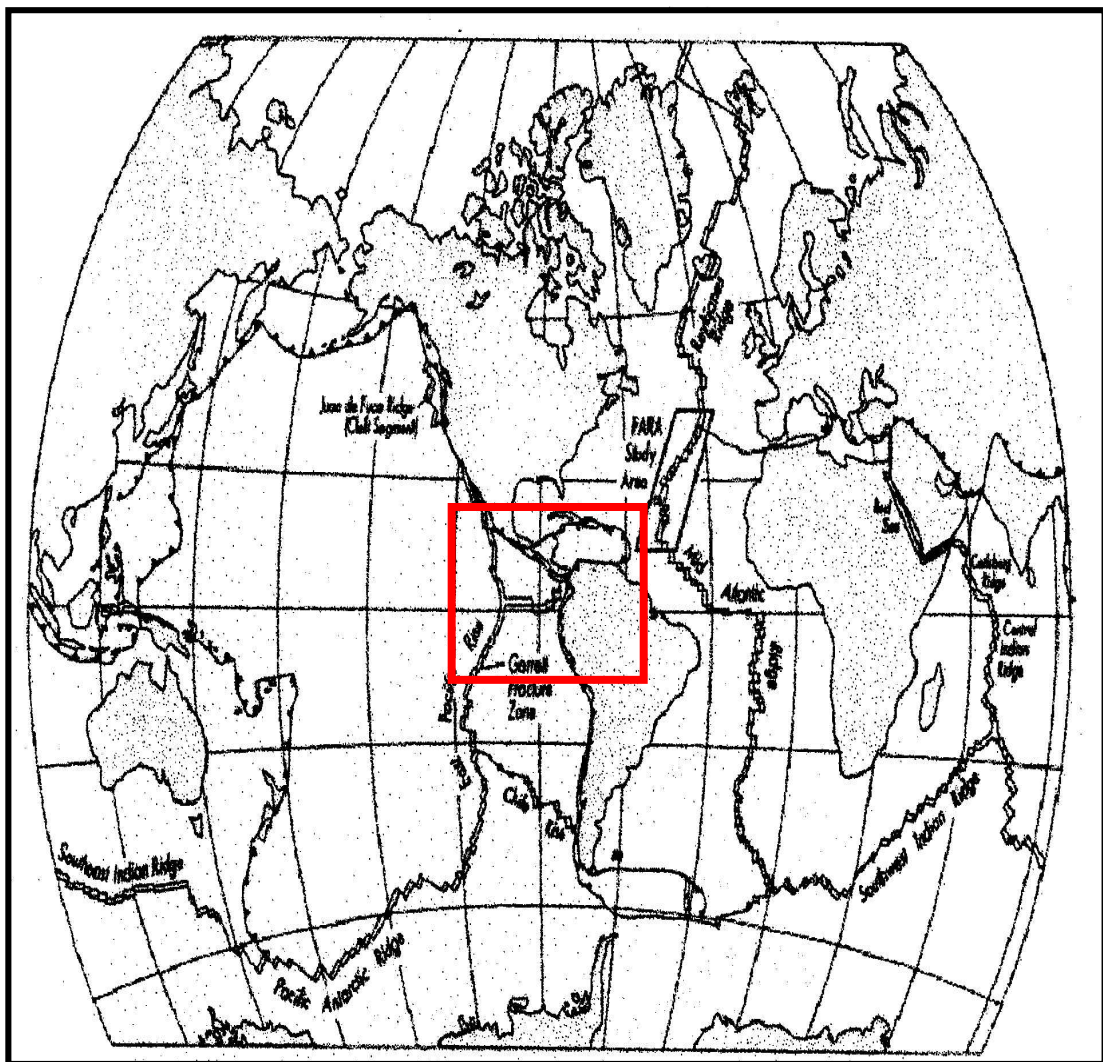


Figure C3 Polymetallic Sulphides and Cobalt Crusts in Guatemala Area

Source: Mann (1999)

She also indicated that:

“Methane hydrates, abundant on the sea-bed, may constitute a major source of energy for the next century – or may de-stabilise the sea floor, causing land-slides, breaking cables, and emitting methane, a greenhouse gas ten times as effective as hydro dioxide. Figure C4 shows that Guatemala has the privilege to have this richness.

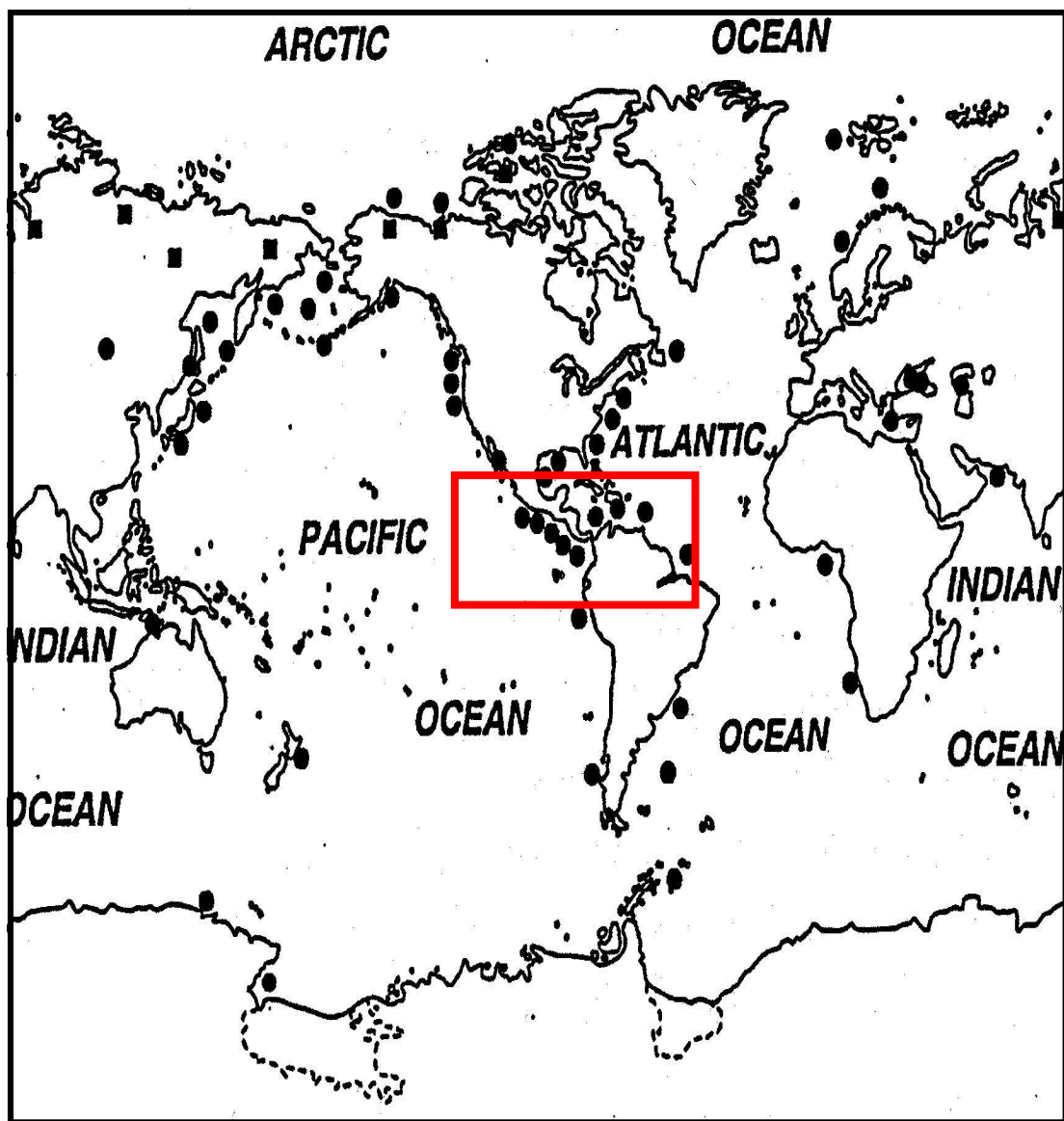


Figure C4 Methane Hydrates area in Guatemala

Source: Mann (1999)

She continues to indicate that bioprospecting and access to the generic resources is possible in the area of the Pacific Ocean.

Recent discoveries of myriads of bacteria on and under the deep Pacific Ocean are rather mind-boggling. The latest report on Ocean and the Law of the Sea by the Secretary-General of the United Nations contains a section on the most recent discoveries. Geologists studying deep-sea volcanic events have found rock walls, only months after an event, covered with thick mats of bacteria feeding on minerals, archaic creatures restating the origin of life. Intensive bioprospecting is being carried out, and many of these genetic resources, with their unique heat and pressure tolerance, are already commercially exploited to the tune of billions of dollars a year. The industries utilising these genetic resources are quite diversified. They include the pharmaceutical industry, the waste treatment, food processing, oil-well services, paper processing industries, as well as mining applications. The potential market for industrial uses of hyperthermophilic bacteria has been estimated at \$ 3 billion per year (Figure C5).

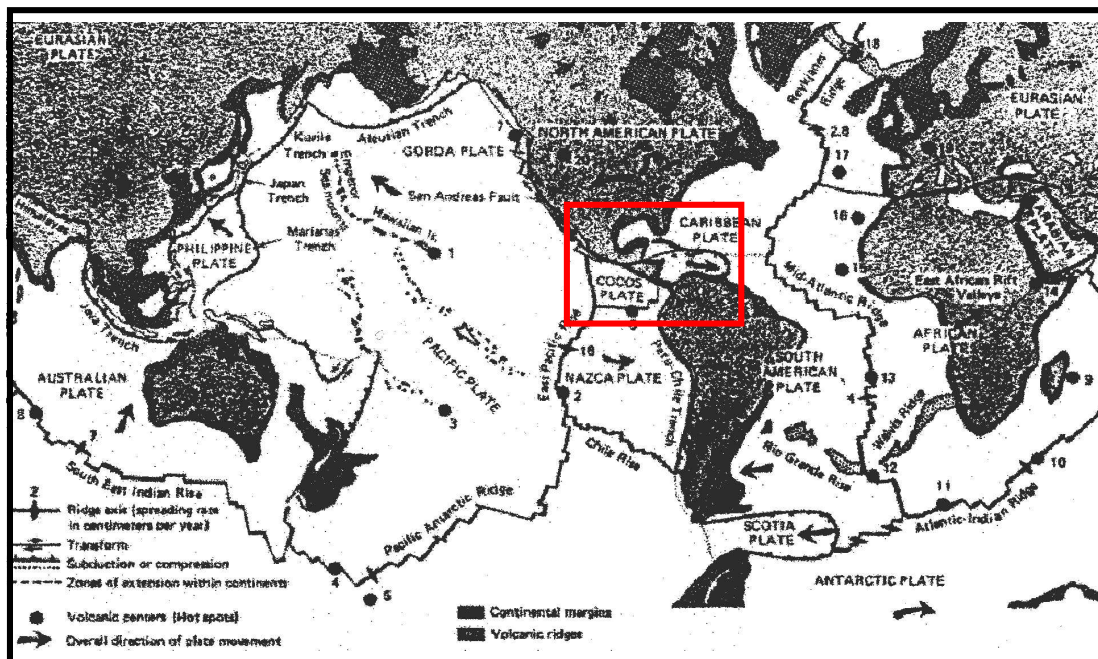


Figure C5 Bioprospecting and Access to the Generic Resources in Guatemala

Source: Mann (1999)

This same position is reinforced by the carefully documented paper by Glowka (1996), who points out:

Hyperthermophilic bacteria are just one example of the commercial potential of microbial genetic resources from the Area; as research continues, other commercially interesting organisms may also be discovered. For example, there may be organisms that orchestrate processes for minerals transport and bioaccumulation of metals. These could be useful in bioremediation of hazardous waste. Other organisms could be useful in biomining applications. Viruses associated with the organisms of the Area, in particular hyperthermophilic bacteria, may provide new vectors useful in biotechnological applications. Researchers may also be able to isolate potential anticancer and antibiotic compounds from deep seabed bacteria or fungi associated with other macro-organisms, as they have in more accessible areas of the ocean. In short, the biodiversity of the seabed has hardly been explored, and we simply do not know what may exist.

Just on September 5, 1999, Kontorovich, Belonin and Khilyuk, made the announcement that a tremendous amount of resources of oil, approximately 7 million of tons annually can be exploitable, also natural gas resources are found in the area of Central America in the coasts of Guatemala, Nicaragua and Honduras.

This new discovery gives Guatemala and other countries involved, a great opportunity to develop this industry and to develop the Guatemalan economy as well as the other countries in the region (Figure C6).



Figure C6 Areas with Oil and Gas Resources in the Atlantic Ocean

Kontorovich, Belonin and Khilyuk (1999)

APPENDIX D

GEOPOLITICAL SITUATION OF GUATEMALA

Today Guatemala has a very good relation with the countries of region with the exception of Belize. Central America (CA) was affected because of the bi-polar conflict which was going on in the world. The region suffers highly and mainly from the human factor, economic, educational and industrial development of their states because of the pressure of political ideologies (cold war). Furthermore, Guatemala has not paid attention to the importance of having boundary treaties with its neighbouring countries. However, the borders with Mexico, Honduras and El Salvador exist but by custom established in the past. None of the countries in CA have treaties among them, for the same reasons.

Historically, with the country of Belize the situation goes more deeply. The Constitution of the Republic of Guatemala, 14 of January of 1985, in it's Article 19th. Declares that the executive will have the power to take those measures that would tend to solve the situation of the rights of Guatemala with respect to Belize, in accordance with the national interest".

Decree No. 56-96 (1996) of the Congress of Guatemala, ratified the United Nations Law of the Sea Convention (UNCLOS), the government declared, that:

- (a) approval of the Convention by the Congress of the Republic of Guatemala shall under no circumstances affect the rights of Guatemala over the territory of Belize, including the islands, cays islets, or its historical rights over Bahia de Amatique, and
- (b) accordingly, the territorial sea and maritime zones cannot be delimited until such time as the existing dispute is resolved.

The present administration has indicated its intention to resolve the dispute with Belize, making it the number one priority now that the final peace accord has been signed.

Charney and Alexander (1996), illustrated the countries that have "treaties on maritime boundaries between the North America and CA , as well as between CA

and the Caribbean. (figure D1)". This illustration clearly shows that no maritime boundaries treaties exist between them.

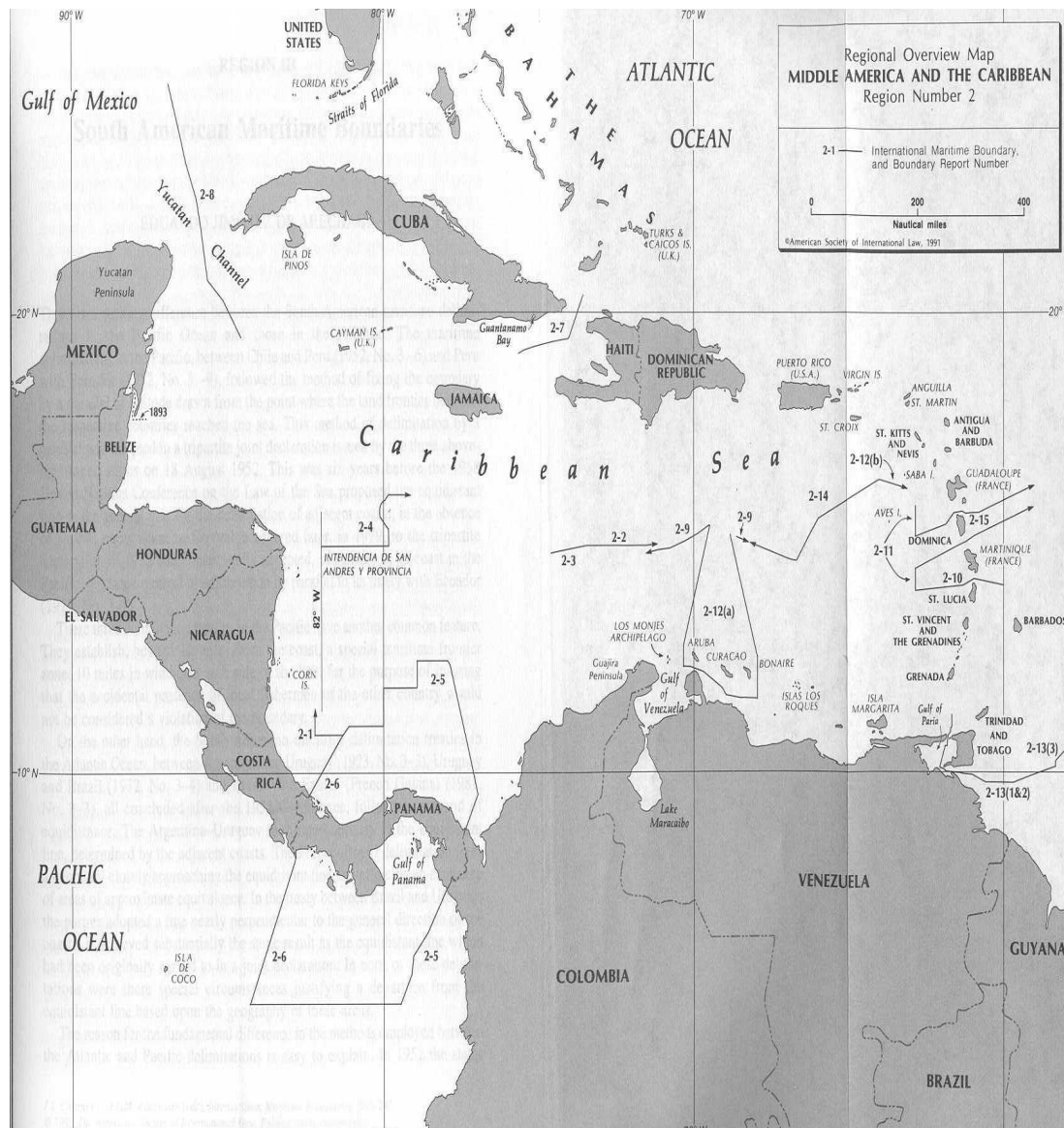


Figure D1 Central American, Caribbean and Mexico Maritime Boundaries

Source: Charney and Alexander (1996)

Prescott (1985), researched on “statistics on Maritime claims in CA, Caribbean Sea and the Gulg of Mexico. He indicates that 15 states declare 12 TS, 15 states 3 TS, 2 states 200 TS and 1 state 6 TS. Only two states declare a 12 EEZ, the rest declare 200 EEZ (Table D1).

Table No. D1 Maritime Claims: Caribbean Sea and the Gulf Of Mexico.

Mainland independent states	Territorial sea nm	Economic zone nm
Belize	3	200
Colombia	12	200
Costa Rica	12	200
Guatemala	12	200
Honduras	12	200
Mexico	12	200
Nicaragua	200	200
Panama	200	
United States of America	3	200
Venezuela	12	200
Island independent states		
Antigua and Barbada	12	200
The Bahamas	3	200
Barbados	12	200
Cuba	12	200
Dominica	12	200
Dominican Republic	6	200
Grenada	12	200
Haiti	12	200
St Kitts and Nevis	3	
St Lucia	3	12
St Vincent and Granadines	3	12
Trinidad and Tobago	12	
Dependent territories		
Anguilla	3	
British Virgen Islands	3	200
Cayman Island	3	200
Guadeloupe	12	200
Martinique	12	200
Montserrat	3	
Navassa Island	3	200

Netherlands Antilles	3	
Puerto Rico	3	200
Turks and Caicos	3	200
United States Virgin Island	3	200

Source: Prescott (1985)

In Central America the lack of maritime boundaries has created problems of overlapping at the 200 EEZ and of no clear limits jurisdiction in the Atlantic Ocean. In the Pacific Ocean the problem of clear limits exists, overlapping does not exist for Guatemala, but does exist for the rest of CA. Brittin (1986), indicates "the areas where overlapping occurs in the 200 EEZ jurisdiction, between Mexico, Belize and the rest of CA Countries. This writer also indicates the lack of treaties between these countries. (Figure D2)".

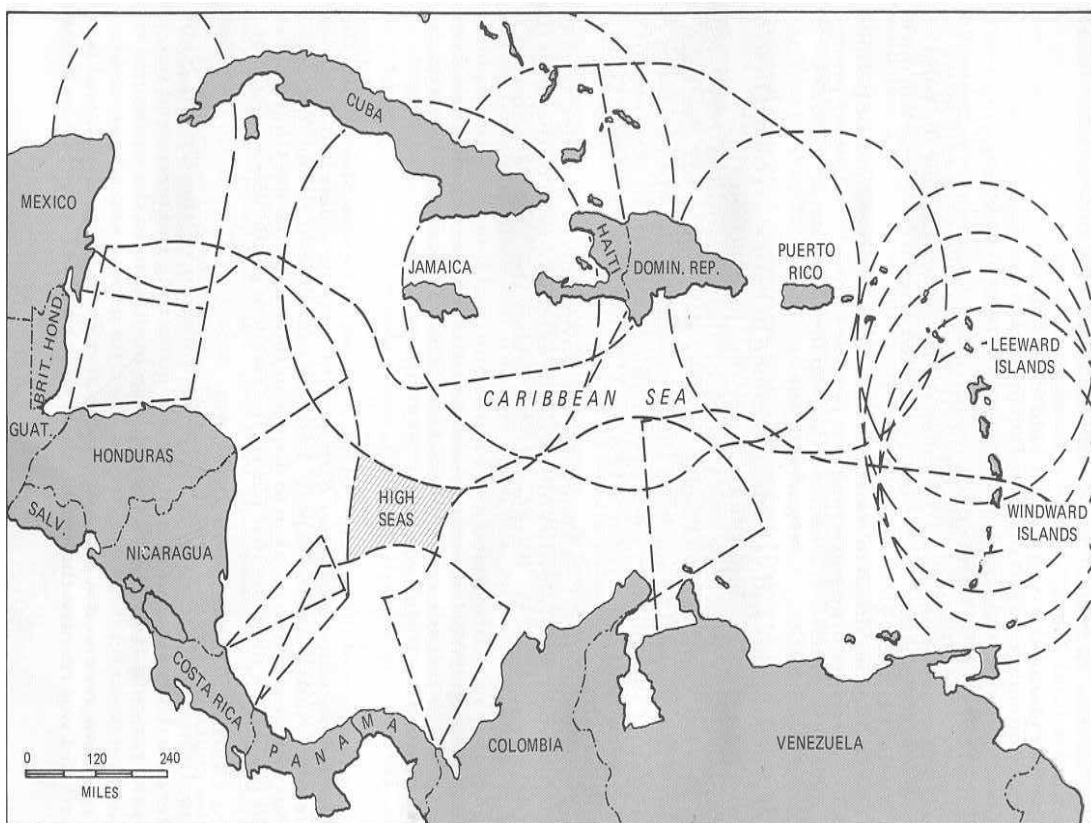


Figure D2 CA, Caribbean and Mexico, 200 EEZ over Lapping and Conflict on Maritime Delimitation of Jurisdiction.

Source: Brittin (1986)

Guatemala has taken some action to establish maritime zone jurisdictions. Based on the Articles 3, 129, 170 of the Constitution of the Republic of Guatemala; the decree 2531 of the Legislative Assembly (1941) declare a 12 TS. The decree 20-76, (1976) of the Congress, reconfirmed its sovereignty farther from its territory and from its interior waters to and over its territorial sea and air space. 12 mile TS implies that the integrity of its territory and sovereignty will be to the seas adjacent to its territory and all the national laws and regulations can be applied in it. A Contiguous Zone (CZ) of 24 miles was established for control and prevention of infringement of customs, fiscal, immigration and sanitary laws and regulations. A 200 mile EEZ was declared for the purpose of exploration, exploitation and administration of the natural resources, the right for establishing and utilising artificial islands, scientific investigations, the safety, the protection and preservation of the marine environment, the control and elimination of contamination.

This same decree 20-76, orders the Armed Forces of Guatemala to be the institution in charge of guarding for the respect of the rights of the Republic, over maritime jurisdiction (also written in the Articles 244 and 245 of the Constitution of Guatemala). Guatemala's Armed Forces have minimum resources to patrol and enforce control on its maritime jurisdiction. The Navy (in-formal maritime safety administration) has done a good job, in capturing foreign flag ships and boats involved in polluting the environment, illegal fishing, drug smuggling and illegal immigrants trafficking. Only the developed countries have the capability to patrol their EEZ. Developed countries have powerful navies, which are essential to carry out this task. Developing countries are at a disadvantage to control, protect and develop their maritime jurisdiction due to economic factors, lack of knowledge and training, as well as political willingness of the government. If Guatemala had a maritime safety administration, it would advised, promote, organise and deal with these matters, which are of great importance for the countries geopolitical and economic situation.

APPENDIX E
LAWS, ACTS, DECREE, RULES AND INTERNATIONAL CONVENTIONS USE IN
GUATEMALA BY THE MARITIME AUTHORITY.

- ❑ Political Constitution of the Republic (1985May31).
- ❑ Constitutive Law of the Arm Forces (1990DIC13).
- ❑ Presidential Act, creation of National Naval Defence Force (1959ENE15)
- ❑ Regulations for governing and policing of ports of the Republic (1939ABR21).
- ❑ Act 20-76 of the Congress of the Republic (1976JUN09).
- ❑ Regulations of the law for import taxes for vehicles (1995FEB24).
- ❑ Decree 1235, Law for Regulation of Pisciculture and of Fishing (1932JAN18).
- ❑ Decree 159, Modification of the article 25 of the Decree 1235 (1945OCT03)
- ❑ Decree 1412, Law that sanctions the illegal maritime fishing (1960DIC07).
- ❑ Decree 1470. Rationalisation of the Exploitation of the fishing resources of the country (1961JUN28)
- ❑ Decree 20-76, Sovereignty over the international waters.
- ❑ Decree 58-86, Approval of the Convention OLDEPESCA.
- ❑ Decree 70-46, Law of taxes for the circulation of vehicles (1995JUN01).
- ❑ Governmental Decree that prohibits the capture of Dolphins (1973ENE18)
- ❑ Governmental Decree 790-83, Reorganisation of the Navy (1983OCT28).
- ❑ Governmental Decree 326-85, Creation of the Naval Police (1985ABR22).
- ❑ Governmental Decree 784-94, Regulations for tuna fish in the maritime jurisdiction (1994DIC23).
- ❑ Governmental Decree 714-95, Creation of the Guatemalan Naval Academy (1995DIC28).
- ❑ UNCLOS III, (1982).
- ❑ Vienna Convention for the Control of Narcotics, (1988).
- ❑ Convention for the creation of I.M.O. (1948).
- ❑ SOLAS Convention (1974).
- ❑ Load Line Convention (1966).
- ❑ COLREG Convention (1972).
- ❑ MARPOL Convention (1974/78).
- ❑ CLC Convention (1969).

APPENDIX F

GUATEMALAN NAVAL FORCE MARITIME MISSION

- **Guarantees the promotion of the development of the Guatemalan maritime interests.**
 - ❑ Maritime Education (Naval, Merchant Marine, Fishing and Pleasure Craft)
 - ❑ Creation of national maritime conscious
 - ❑ Strategic willingness
 - Political willingness
 - High Command willingness
 - Popular willingness
 - ❑ Maritime interest
 - Maritime infrastructure
 - Commercial, artisan and sport fishing
 - Ship construction
 - Scientific investigation
 - Nautical sports
 - Hydrographic and Oceanographic Surveys and charts

- **Comply and enforce the international maritime treaties and conventions sign and ratified by Guatemala.**
 - ❑ Represent the State in conferences dealing with maritime matters
 - ❑ Treaties
 - ❑ Conventions

- **Effectuate operations of fiscal control, immigration, and sanitary in the territorial sea, contiguous zone and exclusive economic zone.**
 - ❑ Operation on control of illegal fishing
 - ❑ Operation on control of trafficking of slaves
 - ❑ Operations on the control of piracy
 - ❑ Operation on control of emigration
 - ❑ Operation on control of fiscal/smuggling (customs)
 - ❑ Operation of control of health

- ❑ Operations on drug interdiction
- ❑ Operations on control of weapon smuggling
- ❑ Operation on control of illegal emission from clandestine stations

- **Effectuate control of the restricted fishing periods and species in extinction in the territorial sea, contiguous zone and exclusive economic zone.**
 - ❑ Enforcing and control of fishing laws
 - ❑ Control of non-fishing periods
 - ❑ Control of species in danger of extinction
 - Control on estuaries and internal waters
 - Control on the high seas

- **Effectuate the control of the contamination/pollution of the maritime environment.**
 - ❑ Control of spills
 - ❑ Development of national contingencies plans
 - Co-ordination of national region plans
 - Co-ordination of local plans
 - Participation in international regional and sub regional contingency plans

- **The preservation of human life at sea.**
 - ❑ Search and rescue operations
 - ❑ Search and salvage operations
 - ❑ Preventive operation for control and patrolling

- **Maritime Administration.**
 - ❑ Registration of vessels and boats
 - ❑ Certificates for vessels and boats
 - ❑ Certificates of competence for Officers and crews
 - ❑ Control of maritime traffic
 - Internal control (internal and interior waters)

- External control (sea and high seas)
- ❑ Pilot services
- ❑ Port services
 - Maritime services on access to port
 - Services on port
 - Marking and maintenance of access channels of a port
- **Maritime Security.**
 - ❑ Maritime security and safety
 - ❑ Port security
 - ❑ Maritime police

APPENDIX G
LIST OF CHILE'S NATIONAL AND INTERNATIONAL REGIME FOR MARITIME MATTERS

- ❑ The Constitution of the Republic of Chile
- ❑ Chilean Merchant Shipping Act No. 222 of 21 Sept. 1978 (Navigation law)
- ❑ Law of the Ministry of Transport Decree No. 557 of 1974
- ❑ Law of the Ministry of Economy Decree No. 279 of 1960
- ❑ Law of the Sub-secretary of Fishing Decree No. 1626 of 1976
- ❑ Organic Law of the Chilean Port Enterprise. Decree No. 290 of 1960
- ❑ Pilotage Rules
- ❑ Rules regarding the Ranking in the Merchant Marine
- ❑ Law to Foment the Merchant Marine
- ❑ Rules regarding the Reception and Delivery of Ships
- ❑ Rules regarding the Expedition of Ships Certificates
- ❑ Rules regarding the Recreative Sports
- ❑ Rules regarding the time Search and Rescue Services
- ❑ Rules regarding Maritime Inquiries
- ❑ Rules for Control, Security and Discipline
- ❑ Radio Installation Regulation
- ❑ Rules for the Carriage of Deck Cargo
- ❑ Rules for the Composition and Size of Crew
- ❑ Communication with Vessels Regulation
- ❑ Wrecks Regulations
- ❑ Rules for Arrange Safety and Discipline on Board
- ❑ Organic and Function Rules of the Navy
- ❑ International conventions (SOLAS, MARPOL, LLC, COLRED, Facilitation, CI/69, Safe containers, SAR, Tonnage, etc.)

APPENDIX H

SWEDISH MARITIME ADMINISTRATION LEGAL REGIME

- ❑ The Constitution of Sweden (Grundlag)
- ❑ The Risksdag Act (Riksdagsordningen)
- ❑ Sweden Merchant Shipping Act
- ❑ Law of the Ministry of Transport and Communication
- ❑ Law of Maritime Safety
- ❑ Maritime Code (1891)
- ❑ Pilotage rules
- ❑ Rules for survey of ships
- ❑ Rules regarding the ranking in the merchant marine
- ❑ Rules regarding the reception and treatment of pollutants
- ❑ Rules regarding the expedition of ships certificates
- ❑ Rules regarding the Search and Rescue Services
- ❑ Rules regarding maritime inquiries
- ❑ Rules for control, security and discipline
- ❑ Radio Installation Regulation
- ❑ Rules for the Carriage of Deck Cargo
- ❑ Rules for living quarters on board
- ❑ Rules for the Composition and Size of Crew
- ❑ Rules for safe working environment on board
- ❑ Communication with Vessels Regulation
- ❑ Wrecks Regulations
- ❑ International conventions (SOLAS, MARPOL, LLC, COLRED, Facilitation, CI/69, Safe containers, SAR, Tonnage, etc.)